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SOME PROPERTIES OF IRON COMPOUNDS AND THEIR RELATION TO WATER CLARIFICATION

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In the clarification of water for potable purposes by rapid sand filtration it is necessary to add a chemical coagulant to assist the process. The two most commonly used coagulants are filter alum and copperas. In previous papers from this laboratory (see Theriault and Clark, 1923; Miller, 1923, 1924, and 1925) studies have been made of some of the fundamental properties of the "alum floc"

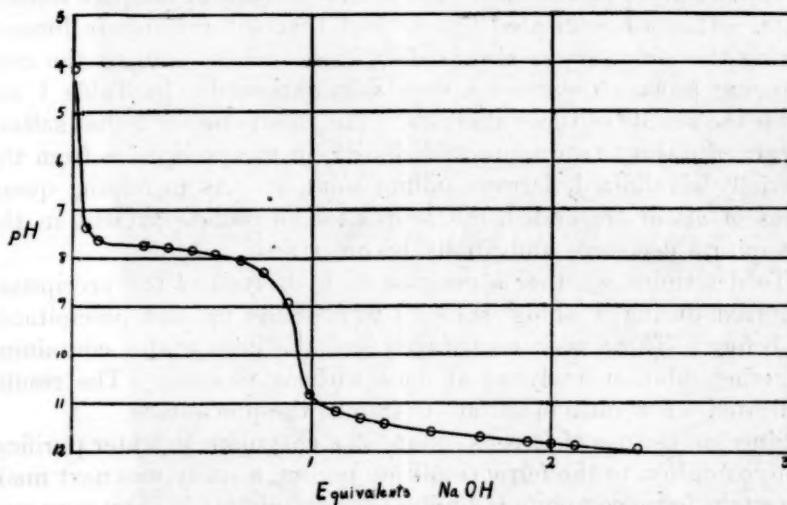


FIG. 1

and the conditions for its formation in relation to its use in water clarification. The present paper deals with the application of the principles evolved for "alum floc" to the iron compounds used to assist in rapid sand filtration.

As a preliminary step, an electrometric titration of a 0.01 molar solution of recrystallized ferrous sulfate was made, using the hydrogen electrode. The results are given in Figure 1.

This curve apparently corresponds to the results obtained by Hildebrand (1913). There is at first a decided increase in pH value with the addition of small quantities of alkali. Simultaneously

with the increase in pH a precipitate begins to form. Upon the addition of one equivalent of alkali a second increase in pH value occurs. A curve of this type suggests the formation of a solid phase consisting of the basic sulfate.

The composition of the precipitate from partially alkalinized ferrous sulfate was determined as follows: Five hundred c. c. of 0.02 molar ferrous sulfate solution were placed in a tall cylinder fitted with a rubber stopper. Oxygen-free nitrogen was bubbled through this solution for an hour. To this solution were added slowly 500 c. c. of solution containing the desired amount of sodium hydroxide through which nitrogen had likewise been bubbled. During this process nitrogen was bubbled continuously through the solution. The precipitate was then repeatedly centrifuged and washed with oxygen-free water in a closed vessel in a nitrogen atmosphere until the wash water no longer gave a test for sulfate. The precipitate was then dissolved and analyzed to determine its sulfate-iron ratio. In spite of precautions, the iron could not be kept in the pure ferrous state. This was indicated by the fact that the precipitate formed during this process was always discolored and that during the centrifuging process the color appreciably darkened. In Table 1 are given the results of these analyses. The results indicate that sulfate is carried down to an appreciable extent in the precipitate from the partially alkalinized, ferrous sulfate solution. As increasing quantities of alkali are added, the proportion of sulfate present in the precipitate decreases and finally becomes zero.

To determine whether a progressive hydrolysis of the precipitate occurred during washing, samples were made up and precipitated as before. These were centrifuged and the precipitates containing adhering solution analyzed at once without washing. The results indicated a low ratio of sulfate to iron in the precipitate.

Since, in the use of ferrous sulfate as a coagulant in water purification, oxidation to the ferric condition occurs, a study was next made of certain ferric compounds similar to the study made upon copperas.

TABLE 1

Experiment No.	Mols. NaOH added per mol. Fe	pH	Mol. ratio SO ₄ Fe in the solid phase
1	0.5	7.9	0.0999
6	.8	7.9	.1002
2	1.0	(?)	.0617
4	1.2	(?)	.0667
5	1.4	(?)	.0704
3	1.5	(?)	0
7	2.0	(?)	0

¹ Gave pH values above the indicator range.

Since an electrometric titration by the hydrogen electrode can not be made upon ferric compounds without special procedures of dubious value, titration curves were made in the following manner upon ferric chloride and potassium ferric alum: One-liter mixtures of the ferric salt and sodium hydroxide were made up in which the concentration of iron was 0.01 molar and the quantity of alkali varied. After the precipitate had settled, the pH value of the solution was determined colorimetrically. In Figure 2 are given the results obtained.

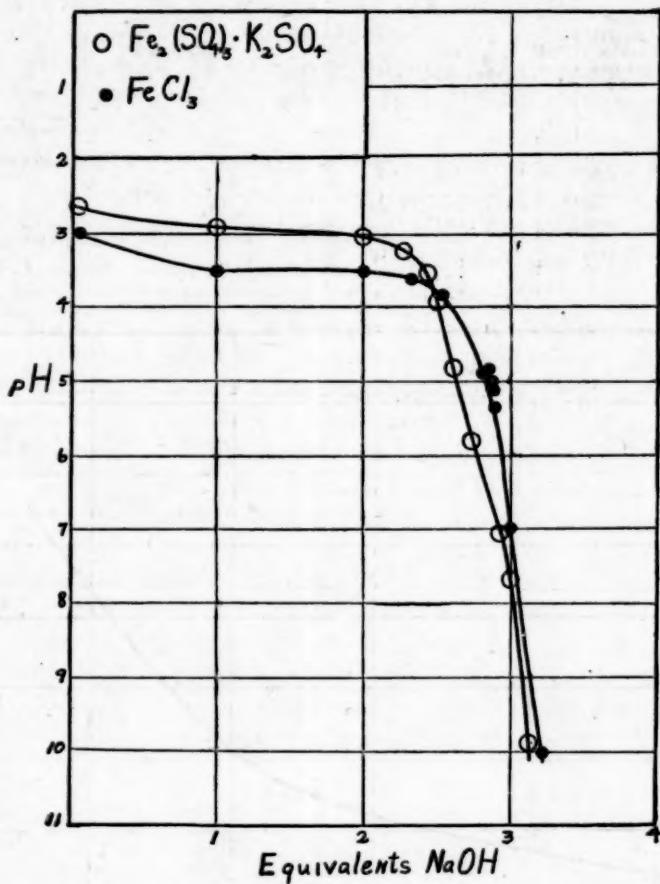


FIG. 2

It will be observed that the titration curves in Figure 2 are very similar to the titration curves for the corresponding aluminium compounds over the more acid ranges (see Theriault and Clark, 1923). An essential difference exists between compounds of the two metals in alkaline solutions, due to the fact that the aluminium precipitate dissolves readily, forming soluble aluminates. The ferric precipitate

does not so dissolve. Keeping this difference in mind, the discussion upon aluminium given in previous papers (Theriault and Clark, 1923, and Miller, 1923) holds equally for the ferric compounds.

The composition of the precipitate from partially alkalinized ferric alum solution was next studied according to the method of Miller (1923). Solutions 0.01 molar with respect to iron were used. The results are tabulated in Table 2 and shown graphically in Figure 3.

TABLE 2

Experiment No.	Mols. NaOH added per mol. Fe	pH	Mol. ratio $\frac{SO_4}{Fe}$ in the solid phase	Remarks
51	0	2.6		
50	1.00	2.9	0.1825	Precipitate yellow-brown. Tends to disperse on long washing.
52	2.00	3.1	.1561	Do.
59	2.25	3.2		Do.
53	2.50	3.9	.1580	Do.
56	2.60	4.8	.1363	Do.
55	2.70	5.8	.1256	Color deepening. Tends to disperse on long washing.
57	2.90	7.1	.0347	Do.
54	3.00	7.7	0	Deep reddish-brown. No tendency to disperse.
58	3.10	9.8	0	Do.

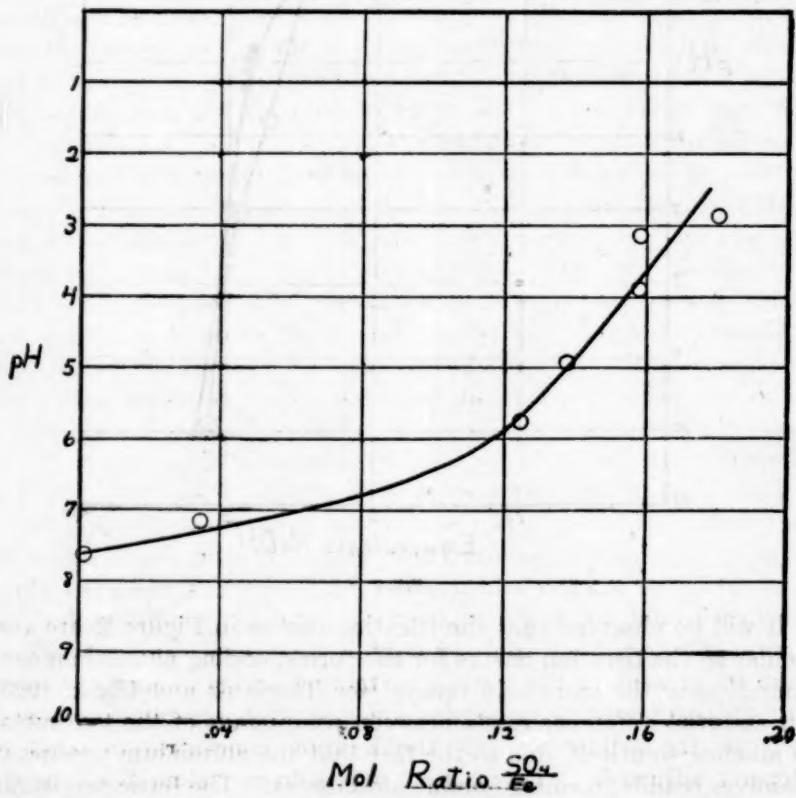


FIG. 3

The precipitate from ferric alum contains sulfate when there is used less than the stoichometric quantity of alkali necessary to react according to the equation



This sulfate is replaceable by other negative ions of equal or greater valence. The precipitate containing sulfate differs from ferric hydrate (which forms when three or more equivalents of alkali are added) in color and in greater tendency to disperse on washing. In all probability it is analogous to the aluminium precipitate (see Miller, 1924) and consists of a solid solution of ferric hydrate with ferric sulfate or with one or more basic ferric salts.

When an attempt was made to determine the composition of the precipitate from the partially alkalinized *ferric chloride* solution the same difficulties were encountered as with *aluminium chloride* (see Miller, 1923). The tendency of the insoluble material to disperse was so great, when less than three equivalents of alkali were added, that no determination could be effected.

In a previous paper from this laboratory it was shown that the pH range over which flocculation of "alum floc" occurred was determined by the nature and concentration of the anions present (Miller, 1925). This principle was likewise applied to the formation of the floc from ferric salts. The effect of chloride ion and sulfate ion upon the pH range of flocculation of the "ferric floc" was determined by treating liter quantities of 0.01 molar ferric chloride and potassium ferric alum, respectively, with varying quantities of sodium hydroxide. The pH was determined colorimetrically and the quantity of iron precipitated was determined quantitatively. In Figure 4 are given graphs representing the results obtained. The floc from ferric alum is almost completely precipitated near a pH value of 3. With ferric chloride, although a solid phase appears as a stable colloid rendering the solution opalescent, flocculation does not occur until a pH value of about 5 has been reached. This is quite analogous to the effects occurring with "alum floc" in presence of these ions.

The results of the experimental work with ferric salts indicate that the "ferric floc" possesses many of the properties of "alum floc." Some of these properties have been enumerated in this article. In relation to the clarification of water by ferric salts, the same three chemical factors which determined the optimum conditions for formation of "alum floc" apply equally to the "ferric floc": (1) There must be present in the water a certain minimum quantity of ferric ion; (2) there must be present an anion of strong coagulating power, such as the sulfate ion; (3) the hydrion concentration must be properly adjusted. "Ferric floc" differs from "alum floc" in the

fact that it does not redissolve at higher pH values. Less careful adjustment of pH at the higher values is therefore required in order to form the "ferric floc." The "ferric floc" begins to form at somewhat lower pH values than does "alum floc." This may prove to be an advantage under certain conditions.

One very important principle underlying the use of copperas in water clarification has not been included in this paper. This principle involves the change from the ferrous to the ferric condition in relation to the formation of "ferric floc" and includes especially a

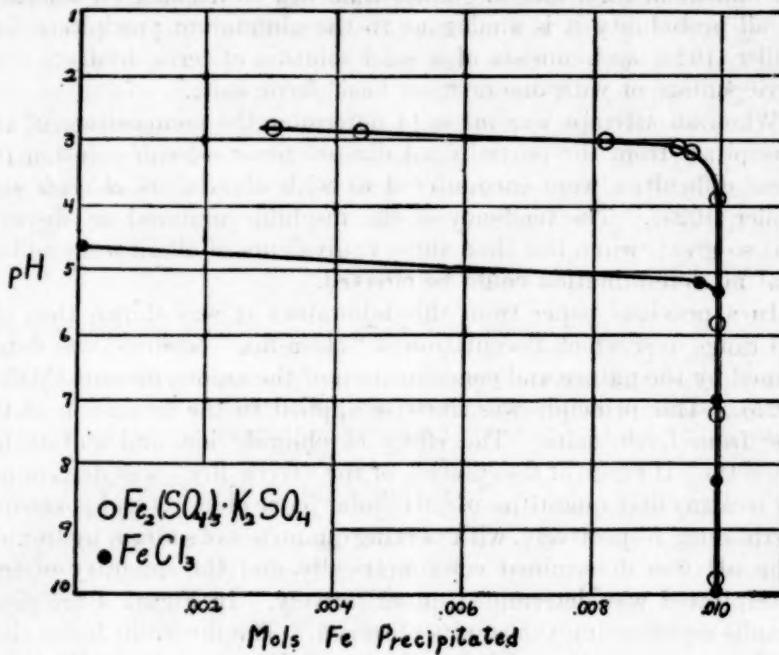


FIG. 4

consideration of the rate of oxidation of ferrous compounds at different hydrogen ion concentrations by dissolved oxygen. It is believed, however, that the information contained in this paper upon the properties of the ferrous and ferric systems forms a scientific basis upon which an investigation of this important principle may be made.

Acknowledgment.—I wish to express my appreciation to Prof. William Mansfield Clark, Chief of the Division of Chemistry, Hygienic Laboratory, for generous assistance and advice throughout the course of this investigation.

SUMMARY

1. The electrometric titration curve of ferrous sulfate by alkali has been determined.
2. The composition of the precipitate from ferrous sulfate at varying hydrogen ion concentrations has been determined in a nitrogen atmosphere.
3. The titration curves of ferric alum and ferric chloride by alkali have been made, using colorimetric methods.
4. The composition of the precipitate from ferric alum at varying hydrogen ion concentrations has been determined. The precipitate from ferric chloride did not lend itself to this type of analysis.
5. The ranges of hydrogen ion concentration over which precipitation occurs with ferric alum and ferric chloride has been determined.
6. The relation of these experimental facts to water clarification by copperas has been discussed. The importance of these data as a basis for a further study of principles has been pointed out.

BIBLIOGRAPHY

Hildebrand, J. H. (1913): Some applications of the hydrogen electrode to analysis, research, and teaching. *J. Am. Chem. Soc.*, **35**, 847.

Miller, L. B. (1923): On the composition of the precipitate from partially alkalinized alum solutions. *Pub. Health Rep.*, **38**, 1995.

Miller, L. B. (1924): Adsorption by aluminium hydrate considered as a solid solution phenomenon. *Pub. Health Rep.*, **39**, 1502.

Miller, L. B. (1925): A study of the effect of anions upon the properties of alum floc. *Pub. Health Rep.*, **40**, 351.

Theriault, E. J., and Clark, W. M. (1923): An experimental study of the relation of hydrogen ion concentration to the formation of floc in alum solutions. *Pub. Health Rep.*, **38**, 181.

**THE CHRONOLOGICAL DEVELOPMENT OF FEDERAL HEALTH
LEGISLATION AND PUBLIC HEALTH AND MEDICAL ACTIVITIES**

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FOREWORD

The following dates list in proper chronological order various Federal statutes dealing with health and medical matters, the inauguration of especially important activities along these lines by the National Government, and other significant events relating to national vitality. The list does not include every law or circumstance, but only the more important ones. Some are given merely for their historical interest.

Items relating to national health

1789: Federal Constitution adopted.

1794: An act authorizing the President to convene Congress at a place where there is no hazard to health. Act of April 3, 1794 (1 Stat. 353).

1798: Authorizing President to appoint a physician general for the Army. Act of May 28, 1798 (never called into service).

1798: Relief of sick and disabled seamen. Act of July 16, 1798 (1 Stat. 605). The foundation for the Marine Hospital Service.

1799: Extension of this relief to Navy and provisions for expenditure of funds. Act of March 2, 1799 (1 Stat. 729).

1799: To regulate the medical establishment, providing for a physician general, an apothecary general, and a purveyor, and other personnel in the Army. Act of March 2, 1799 (1 Stat. 721).

1811: Placing naval hospitals under a board of commissioners of navy hospitals. Act of February 26, 1811 (2 Stat. 650).

1813: An act to encourage vaccination. Act of February 27, 1813 (2 Stat. 806). Repealed in 1822 (3 Stat. 677).

1813: Army medical establishment reorganized. Act of March 3, 1813 (2 Stat. 818).

1818: Creation of Office of Surgeon General of Army. Act of April 14, 1818 (3 Stat. 426).

1821: Office of apothecary general in Army abolished. Act of March 2, 1821 (3 Stat. 615).

1832: Provision for vaccination of Indian tribes. Act of May 5, 1832 (4 Stat. 514). The first law to deal with the health of Indians.

1832: Navy hospitals transferred to Secretary of the Navy. Act of July 10, 1832 (4 Stat. 572).

1842: Bureau of Medicine and Surgery established in Navy Department. Act of August 31, 1842 (5 Stat. 579).

1848: Examination of imported drugs and medicinal preparations by customs officers authorized. Act of May 17, 1848 (9 Stat. 237). This act remained in force until the pure food law of 1906.

1850: First Federal report on mortality statistics. Based on census enumerators' returns.

1852: Appropriation of \$100,000 for Government Hospital for the Insane. Act of August 31, 1852 (10 Stat. 92).

1855: Government Hospital for Insane organized. Act of March 3, 1855 (10 Stat. 682).

1862: Chemist appointed (August 21) in the Department of Agriculture, which had been created by the act of May 15, 1862 (12 Stat. 387).

1870: Marine Hospital Service definitely created. Act of June 29, 1870 (16 Stat. 169).

1871: Dr. John M. Woodworth appointed (April) Supervising Surgeon of Marine Hospital Service.

1871: Establishment of Freedmen's Hospital. Act of March 3, 1871 (16 Stat. 506). Placed under supervision of Secretary of War in 1872, transferred to Department of Interior in 1874.

1873-1877: Medical and education division in Office of Indian Affairs.¹

1878: Investigation of diseases of animals authorized by appropriation act of June 20, 1878 (20 Stat. 240). Also by act of May 29, 1884 (23 Stat. 32) especially for that purpose.

¹ Information from Office of Indian Affairs.

1878: First quarantine law of national scope, charging officers of Marine Hospital Service with its enforcement. Act of April 29, 1878 (20 Stat. 27). Other quarantine laws extending Federal aid to State and local regulations were passed in 1796, 1832, and 1866.

1879: National Board of Health established for four years. Acts of March 3, 1879 (20 Stat. 484), and June 2, 1879 (21 Stat. 5). Appropriations were made until 1885, then discontinued. The act creating the board was repealed in 1893 (27 Stat. 452).

1880: First death registration area.²

1884: Bureau of Animal Industry established under Commissioner of Agriculture. Act of May 29, 1884 (23 Stat. 31).

1884: Bureau of Labor established in Interior Department. Act of June 27, 1884 (23 Stat. 60). Became an independent department in 1888, transferred to the Department of Commerce and Labor in 1903, and to the Department of Labor in 1913 as the Bureau of Labor Statistics. From the beginning the bureau has investigated industrial hygiene, housing, and other socio-health conditions.

1886: Tax on oleomargarine imposed. Act of August 2, 1886 (24 Stat. 209). Analytical work done by analytical and chemical division of the Bureau of Internal Revenue until the passage of the pure food law of 1906, when it was transferred to the Bureau of Chemistry.

1890: First effective measure dealing with interstate control of disease. Act of March 27, 1890 (26 Stat. 31).

1890: Medical inspection of immigrants by Federal officers of the Marine Hospital Service begun (April) at the port of New York. An act of 1882 (22 Stat. 214) was the first placing restrictions on the admission of defective aliens.

1891: Medical inspection of immigrants extended to all ports. Act of March 3, 1891 (26 Stat. 1084).

1893: New quarantine act. Extension of activities of Marine Hospital Service. Act of February 15, 1893 (27 Stat. 449). Still in force. Amended in 1901 (31 Stat. 1086).

1894: Appropriation of \$10,000 to Department of Agriculture for a study of nutrition. Act of August 8, 1894 (27 Stat. 264).

1901: Appropriation for Hygienic Laboratory under Marine Hospital Service. Act of March 3, 1901 (31 Stat. 1137). The laboratory was not occupied until 1904.

1902: Collection of vital statistics by Bureau of the Census (Department of the Interior, transferred to Department of Commerce and Labor in 1903, and to Department of Commerce in 1913) authorized. Act of March 6, 1902 (32 Stat. 52) amended by act of April 27, 1904 (33 Stat. 362). An act of July 1, 1902 (32 Stat. 714) authorized the Public Health and Marine Hospital Service to prepare forms and compile vital statistics.

1902: Division of Chemistry raised to status of a bureau in the Department of Agriculture. Act of June 3, 1902 (32 Stat. 303).

1902: Name of Marine Hospital Service changed to Public Health and Marine Hospital Service. Act of July 1, 1902 (32 Stat. 712). Various other new provisions.

1902: Tests and control of biological products in interstate commerce. Act of July 1, 1902 (32 Stat. 728). This duty was turned over to the Public Health and Marine Hospital Service, which issued the first regulations on February 21, 1903.

² Information from division of vital statistics, United States Bureau of the Census.

1905: Leprosy hospital established in Hawaii. Act of March 3, 1905 (33 Stat. 1009). Operated by the Public Health and Marine Hospital Service. An investigation of leprosy had been authorized in 1899 (30 Stat. 976).

1906: The pure food and drugs law passed. Increase of scope of Bureau of Chemistry. Act of June 30, 1906 (34 Stat. 768). In 1918 detail of Public Health Service officers to the Bureau of Chemistry was authorized (40 Stat. 992).

1906: Meat inspection law passed. Increase of scope of Bureau of Animal Industry. Act of June 30, 1906 (34 Stat. 679). Other meat inspection laws had been passed in 1890 (26 Stat. 414), 1891 (26 Stat. 1090), and 1895 (28 Stat. 732).

1906: Extension of national control of quarantine by purchase of local stations. Act of June 19, 1906 (34 Stat. 299).

1909: First organized medical relief for natives of Alaska. Under jurisdiction of Bureau of Education (Department of the Interior). The first definite appropriation for this purpose was not made until 1915 (38 Stat. 822, 862). An officer of the Public Health Service was detailed to assist in health work in Alaska in 1912, following a survey made by the service in 1911.

1909: Creation of a health section in the educational division of the Office of Indian Affairs, presumably by department order.

1909: National Bureau of Health advocated by President W. H. Taft in his first annual message on December 7. He repeated this recommendation in his second message on December 6, 1910. Bills to this end were introduced in Congress, but were not successful.

1910: Bureau of Mines established in Department of the Interior. Act of May 16, 1910 (36 Stat. 369). This was revised in 1913 (37 Stat. 681). Investigations to improve the health and safety of miners were authorized. An act of June 12, 1917 (40 Stat. 146), authorized detail of Public Health Service officers to the bureau.

1910: Law prohibiting white-slave traffic (the so-called Mann Act) passed. Act of June 25, 1910 (36 Stat. 825).

1911: Division of school hygiene in the Bureau of Education of the Interior Department established by order of the Commissioner of Education.

1912: Children's Bureau established in the Department of Commerce and Labor. Act of April 9, 1912 (37 Stat. 79). Transferred to Department of Labor in 1913 (37 Stat. 736).

1912: Tax imposed on white phosphorus matches. Act of April 9, 1912 (37 Stat. 81).

1912: Name of Public Health and Marine Hospital Service changed to Public Health Service, and field of action extended somewhat. Act of August 14, 1912 (37 Stat. 309).

1914: Antinarcotic law, the so-called Harrison Act, passed. Act of December 17, 1914 (38 Stat. 785).

1915: First birth registration area.³

1916: First Federal child labor law. Act of September 1, 1916 (39 Stat. 675). Administered by Children's Bureau. Declared unconstitutional by the United States Supreme Court, June 3, 1918.

1916: Federal employees' compensation law. Act of September 7, 1916 (39 Stat. 742).

1917: Federal leprosy hospital authorized. Act of February 3, 1917 (39 Stat. 872). Not occupied until 1920.

³Information from division of vital statistics, United States Bureau of the Census.

1917: New immigration law. Act of February 5, 1917 (39 Stat. 874). Provisions controlling medical examination now in force.

1917: Federal Board for Vocational Education established. Act of February 23, 1917 (39 Stat. 929). A previous law in 1914 had authorized Federal aid to the States (38 Stat. 372).

1918: The World War. An order placing all Federal health work, except that of the Army, Navy, and Bureau of Labor Statistics, under the Secretary of the Treasury, through the Public Health Service, was issued by President Wilson on July 1, 1918.

1918: Division of venereal diseases created in the Public Health Service, and also an interdepartmental social hygiene board. Act of July 9, 1918 (40 Stat. 886). The latter has received no appropriations since 1922.

1918: The Women in Industry Service created in the Department of Labor. Act of July 1, 1918 (40 Stat. 634). Became a permanent bureau, called the Women's Bureau, in 1920. Act of June 5, 1920 (41 Stat. 987).

1918: The influenza epidemic. In October \$1,000,000 was appropriated to enable the Public Health Service to combat and suppress the disease (40 Stat. 1088).

1919: The child labor tax law, administered by the Bureau of Internal Revenue (40 Stat. 1138). Declared unconstitutional in 1922.

1919: Public Health Service authorized to give medical relief to war veterans. Act of March 3, 1919 (40 Stat. 173). The service had already been doing this since October, 1917, through an arrangement with the Bureau of War Risk Insurance. The work was turned over to the Veterans' Bureau when it was created in 1921. Act of August 9, 1921 (42 Stat. 147).

1921: Maternity and infancy law passed. Increase of scope of Children's Bureau. Act of November 23, 1921 (42 Stat. 135).

1922: Increase of compensation for commissioned officers of Public Health Service. Act of June 10, 1922 (42 Stat. 625).

1922: Welfare division established in the Post Office Department by order of the Postmaster General. Now known as the service relations division.

1922: Federal Narcotics Control Board created. Act of May 26, 1922 (42 Stat. 596). The act prohibits the importation of crude opium for other than medicinal uses.

1923: Bureau of Home Economics established in the Department of Agriculture. Act of February 26, 1923 (42 Stat. 1289). This bureau had been a division of the States Relations Service since 1915, and previously studies had been made under the Office of Experiment Stations since 1894.

1924: Bureau of Dairying established in the Department of Agriculture. Act of May 29, 1924 (43 Stat. 243). This bureau had been a division of the Bureau of Animal Industry since 1895.

CITY HEALTH OFFICERS, 1925

Directory of Those in Cities of 10,000 or More Population

Directories of the city health officers in the cities of the United States having a population of 10,000 or more have been published in the Public Health Reports¹ for each year from 1916 to 1924, for the information of health officers and others interested in public

¹ Reprints Nos. 346, 416, 494, 539, 599, 702, 767, 876, and 930 from the Public Health Reports.

health activities. These directories have been compiled from data furnished by the health officers. The cities included in this directory are those having 10,000 population or more on July 1, 1924, as estimated by the Bureau of the Census.

The asterisk (*) indicates that the officer so designated has been reported to be a "whole-time" health officer. For this purpose a "whole-time" officer is defined as "one who does not engage in the practice of medicine or any other business, but devotes all his time to official duties."

City	Name of health officer	Official title
Alabama:		
Anniston.....	*G. A. Cryer, M. D.....	County health officer.
Bessemer.....		
Birmingham.....	*J. D. Dowling, M. D.....	County and city health officer.
Dothan.....	*T. E. Tucker, M. D.....	City and county health officer.
Florence.....	*W. D. Hubbard, M. D.....	Field agent, U. S. Public Health Service.
Gadsden.....		
Mobile.....	*C. L. Murphree, M. D.....	County health officer.
Montgomery.....	*C. A. Mohr, M. D.....	Do.
Selma.....	*J. L. Bowman, M. D.....	Do.
Tuscaloosa.....	*L. T. Lee, M. D.....	Do.
Arizona:	*A. A. Kirk, M. D.....	County and city health officer.
Douglas.....	Zachery Causey, M. D.....	City health officer.
Phoenix.....	L. D. Dameron, M. D.....	Do.
Tucson.....	A. G. Schnabel, M. D.....	City physician.
Arkansas:		
Fort Smith.....	*J. E. Johnson, M. D.....	Health officer.
Helena.....	Mrs. E. G. Miles.....	Public health nurse.
Hot Springs.....	*Austin F. Barr, M. D.....	City health officer.
Jonesboro.....	W. C. Overstreet, M. D.....	Do.
Little Rock.....	*William Leland Holt, M. D., C. P. H.	City physician.
North Little Rock.....	Howell Atkinson, M. D.....	City health officer.
Pine Bluff.....	Wm. H. Blankenship, M. D.....	
California:		
Alameda.....	Arthur Hieronymus, M. D.....	Health officer.
Alhambra.....	*S. J. Stewart, M. D.....	District health officer.
Bakersfield.....	P. J. Cuneo, M. D., LL. B.....	Health officer.
Berkley.....	*William P. Shepard, M. D.....	Do.
Chico.....	C. E. Tovee.....	City health officer.
Eureka.....	John N. Chain, M. D.....	City physician and health officer.
Fresno.....	C. Mathewson, M. D.....	Health officer.
Glendale.....	*Gerhard Kaemmerling, M. D.....	Do.
Long Beach.....	*G. E. McDonald, M. D.....	City health officer.
Los Angeles.....	*George Parrish, M. D.....	Health commissioner.
Modesto.....	J. W. Morgan, M. D.....	City health officer.
Oakland.....	Harry E. Foster, M. D.....	Health officer.
Pasadena.....	*Frank W. Hodgdon, Jr., M. D.....	City health officer.
Pomona.....	Eugene F. Fontaine, M. D.....	Deputy county health officer.
Richmond.....	Charles Robert Blake, M. D.....	Commissioner of health.
Riverside.....	W. B. Wells, M. D.....	Health officer.
Sacramento.....	Walter William Cress, M. D.....	Do.
San Bernardino.....	Colin C. Owen, M. D.....	City health officer.
San Diego.....	*Alex M. Lesem, M. D.....	Health officer and superintendent.
San Francisco.....	*William C. Hassler, M. D., Ph. G.	Health officer and registrar.
San Jose.....	Henry C. Brown, M. D.....	Health officer.
Santa Ana.....	*V. G. Preston, M. D.....	County health officer.
Santa Barbara.....	*William H. Eaton, M. D.....	Health officer.
Santa Cruz.....	W. R. Congdon, M. D.....	City health physician.
Santa Monica.....	A. C. Weaver, M. D.....	District health officer.
Stockton.....	*John J. Sippy, M. D.....	City health officer.
Vallejo.....	Edward A. Peterson, M. D.....	Do.
Venice.....	*J. B. Sands, M. D.....	
Colorado:		
Boulder.....	J. H. Bush, M. D.....	Director of public health.
Colorado Springs.....	Omer R. Gillett, M. D.....	City health officer.
Denver.....	*Ethel D. Humphreys, M. D.....	Manager of health and charities.
Greeley.....	Burgen Woodcock, M. D.....	City physician.
Pueblo.....	W. E. Buck, M. D.....	Chief, department of health and sanitation.
Trinidad.....	G. W. Robinson, M. D.....	City physician.
Connecticut:		
Ansonia.....	Frederick C. Goldstein, M. D.....	Health officer.
Bridgeport.....	William H. Coon, M. D.....	Do.
Bristol.....	Joseph I. Woisard, M. D.....	Do.
Danbury.....	Everett J. S. Scofield, M. D.....	Do.

City	Name of health officer	Official title
Connecticut—Contd.		
Derby	Thomas F. Plunkett, M. D.	Health officer.
East Hartford	F. H. Mayberry, M. D.	Do.
Enfield	Frank F. Simonton, M. D.	Do.
Fairfield	Laurence E. Poole, M. D.	Do.
Greenwich	Albert E. Austin, M. D.	Do.
Groton	Frank W. Hewes, M. D.	Do.
Hartford	*Charles P. Bostford, M. D.	Superintendent of health and registrar.
Manchester	D. C. Y. Moore, M. D.	Chairman, board of health.
Meriden	Joseph A. Cooke, M. D.	Health officer.
Middletown	Thomas P. Walsh, M. D.	Do.
Milford	Willis S. Putney, M. D.	Town health officer.
Naugatuck		
New Britain	*Richard W. Pullen, M. D.	Health officer.
New Haven	John L. Rice, M. D.	Do.
New London	*Benjamin N. Pennell, D. V. S.	Do.
Norwalk	Robert E. Perdue, M. D.	City health officer.
Norwich	Edward J. Brophy, M. D.	Do.
Orange		
Shelton	Gould A. Shelton, M. D.	Health commissioner.
Stamford	*Raymond D. Fear, M. D., Dr. P. H.	Town health officer.
Stonington ¹	Charles F. Congdon, M. D.	Do.
Stratford	DeRuyter Howland, M. D.	
Torrington		
Wallingford	Wm. Joseph Riordan, M. D.	Health officer.
Waterbury	Thomas J. Kilmartin, M. D.	Do.
West Hartford	Ralph W. E. Alcott, M. D.	Do.
Willimantic	Wm. P. S. Keating, M. D.	City health officer.
Delaware:		
Wilmington	Fred F. Armstrong, M. D.	Secretary, board of health.
District of Columbia:		
Washington	*Wm. C. Fowler, M. D.	Health officer.
Florida:		
Jacksonville	*Noble A. Upchurch, M. D.	City health officer.
Key West	Eugene C. Lowe, M. D.	Do.
Miami	*W. T. Lanier, M. D.	Chief, division of health.
Orlando	Sylvan McElroy, M. D.	City physician.
Pensacola		
St. Petersburg	Ray Davies, M. D.	Health commissioner.
Tampa	*A. C. Hamblin, M. D.	City health officer.
West Palm Beach	*E. D. Clawson, V. M. D.	Do.
Georgia:		
Albany	*Hugo Robinson, M. D., Ph. G.	Commissioner of health.
Athens	J. D. Applewhite, M. D.	County health commissioner.
Atlanta	John P. Kennedy, M. D.	City health officer.
Augusta	Harry B. Neagle, M. D., D. P. H.	Commissioner of health.
Brunswick	*H. L. Akridge, M. D.	Do.
Columbus		
La Grange	*C. S. Kinzer, M. D.	Health officer.
Macon	*Chas. L. Ridley, M. D.	Do.
Rome	Buena Vista Elmore, M. D.	City health officer.
Savannah	*Victor H. Bassett, M. D.	Commissioner of health.
Valdosta	Gordon T. Crozier, M. D.	Do.
Waycross	*George E. Atwood, M. D.	Commissioner of health
Idaho:		
Boise	*R. H. Pratt.	Health officer.
Pocatello	H. H. Hughart, M. D.	City physician.
Illinois:		
Alton	D. F. Duggan, M. D.	Health commissioner.
Aurora	Geo. W. Haan, M. D.	Do.
Belleview		
Berwyn		
Bloomington	*Charles E. Shultz, M. D.	Health director.
Blue Island	*Louis A. Burkhardt.	Commissioner of health.
Cairo	B. S. Hutcheson, M. D.	City health officer.
Canton		
Centralia		
Champaign	W. E. Schowengerdt, M. D.	Do.
Chicago	*Herman N. Bundesen, M. D.	Commissioner of health.
Chicago Heights	E. F. Hay, M. D.	Health physician.
Cicero	J. J. Hood, M. D.	Commissioner of health.
Collinsville	R. H. Greaves, M. D.	City health officer.
Danville	W. C. Dixon, M. D.	Health commissioner.
Decatur	*Wm. S. Keister, M. D.	Director of health.
East Moline	J. Henry Fowler, M. D.	City health officer.
East St. Louis	*John T. Connors.	Commissioner of health.
Elgin	A. L. Mann, M. D.	City physician.
Evanston	Clarence T. Roome, M. D.	Commissioner of health.
Forest Park	Hermann P. A. Carstens, M. D.	Health commissioner.
Freeport	Robert J. Burns, M. D.	Commissioner of health.
Galesburg	*E. M. Ellsworth	City health officer.
Granite City	J. J. Fitzgerald, M. D.	City physician.
Harvey	M. R. Morse, M. D.	Health officer.

¹ Address, Mystic, Conn.

City	Name of health officer	Official title
Illinois—Continued		
Herrin	Wm. G. Davis	President, board of health.
Jacksonville	*Thomas Allen Mann, M. D.	Director of health.
Joliet	Ed. J. Huggins, M. D.	Commissioner of health.
Kankakee	C. K. Smith, M. D.	Health officer.
Kewanee	H. N. Hedin, M. D.	Superintendent of health.
La Salle	*E. W. Wells, M. D.	Health commissioner.
Lincoln	*Oscar Blackford	Health officer.
Marion	W. Edw. Reid, M. D.	President, board of health.
Mattoon	R. J. Coultas, M. D.	City health officer.
Maywood	R. L. Reynolds, M. D.	Health officer.
Moline	*E. A. Edlen, M. D.	City physician.
Mount Vernon		
Murphysboro		Health officer.
Oak Park	Frank S. Needham, M. D.	Commissioner of health.
Ottawa	Enos E. Palmer, M. D.	Health officer.
Pekin	L. R. Clary, M. D.	Do.
Peoria	Joel A. Eastman, M. D.	Commissioner of health.
Quincy	*Wm. D. Wrightson	Public health officer.
Rock Island	Harry Frey, M. D.	Health commissioner.
Rockford	*N. O. Gunderson, M. D.	Commissioner of health.
Springfield	*Raymond Voorhees Brokaw, M. D.	Superintendent of health.
Streator	*Arthur Gaff	Health officer.
Urbana	George F. Way, M. D.	Do.
Waukegan	Howard C. Hoag, M. D.	City physician.
West Frankford	H. L. Davis, M. D.	Do.
Indiana:		
Anderson	E. M. Conrad, M. D.	Secretary, board of health.
Bloomington	C. E. Harris, M. D.	Do.
Clinton	Isaac D. White, M. D.	Do.
Connersville	B. R. Smith, M. D.	Do.
Crawfordsville	Aubrey L. Loop, M. D.	City health officer.
East Chicago	M. A. Given, M. D.	Secretary, board of health.
Elkhart	*E. C. Meyers	Secretary, board of health.
Elwood	Harry W. Fitzpatrick, M. D.	Secretary, board of health.
Evansville	Wallace C. Dyer, M. D.	Secretary, health department.
Fort Wayne	John H. Gilpin, M. D.	Secretary, board of health.
Frankford	A. G. Chittick, M. D.	City health officer.
Gary	C. M. Reyer, M. D.	Secretary, board of health.
Hammond	Wm. A. Buchanan, M. D.	Do.
Huntington	R. F. Frost, M. D.	Do.
Indianapolis	*Herman G. Morgan, M. D.	Do.
Jeffersonville	D. L. Field, M. D.	Do.
Kokomo	Thomas C. Cochran, M. D.	City health officer.
Lafayette	A. J. Bauer, M. D.	City health commissioner.
LaPorte	John Pracher, M. D.	City health officer.
Logansport	*Fred G. Six	Health inspector.
Michigan City	Nella C. Reed, M. D.	Health officer.
Marion	V. V. Cameron, M. D.	Secretary, board of health.
Mishawaka	Lee P. Van Rie, M. D.	Do.
New Albany	U. G. Poland, M. D.	Do.
New Castle	Chester C. Funk, M. D., Ph. G.	Do.
Peru	Wm. C. Heilman, M. D.	Do.
Richmond	Charles E. Duffin, M. D.	City health officer.
South Bend	Charles S. Bosenbury, M. D.	Secretary, board of health.
Terre Haute	George T. Johnson, M. D.	Do.
Vincennes	Clarke E. Stewart, M. D.	Do.
Wabash	L. O. Sholtz, M. D.	Do.
Whiting	E. L. Dewey, M. D.	Do.
Iowa:		
Boone	Wm. Woodburn, M. D.	Health officer.
Burlington	George H. Steinle, M. D.	Do.
Cedar Rapids	*Anton Flusty	Do.
Clinton	H. R. Sugg, M. D.	Do.
Council Bluffs	A. A. Robertson, M. D.	Do.
Davenport	*Theodore J. Meyer	Do.
Des Moines	H. L. Sayler, M. D.	Health commissioner.
Dubuque	*D. C. Steelsmith, M. D., C. P. H.	Director of health.
Fort Dodge	*E. S. Welch	Health officer.
Iowa City	Geo. H. Scanlon, M. D.	City health physician.
Keokuk	Bruce L. Gilfillan, M. D.	Do.
Marshalltown	B. L. Frey, M. D.	Health officer.
Mason City	Matthew J. Fitzpatrick, M. D.	Health physician.
Muscatine	A. L. Bryan, M. D.	City health physician.
Ottumwa	J. W. Elerick, M. D.	City health officer.
Sioux City	*W. D. Hayes, C. P. H.	Commissioner of health.
Waterloo	J. R. Thompson, M. D.	City health officer.
Kansas:		
Arkansas City	Ernest F. Day, M. D.	Chairman, board of health
Atchison	Charles W. Robinson, M. D.	City health officer.
Chanute	M. A. Duncan, M. D.	City physician.
Coffeyville	Walter H. Wells, M. D.	Do.
El Dorado	*J. W. Buckley	City health officer.
Emporia	*J. S. Fulton, M. D.	Do.

City	Name of health officer	Official title
Kansas—Continued		
Fort Scott	C. L. Mosley, M. D.	Assistant collaborating epidemiologist, U. S. P. H. S.
Hutchinson	Guy R. Walker, M. D.	City physician
Independence		
Kansas City	*Louis B. Gloyne, M. D.	Commissioner of health and sanitation.
Lawrence	H. L. Chambers, M. D.	Superintendent, health department.
Leavenworth	Cyrus D. Lloyd, M. D.	City health officer.
Newton	H. M. Glover, M. D.	County health officer.
Parsons	L. B. Kackley, M. D.	Health officer.
Pittsburg	Ralph E. Jenkins, M. D.	City health officer.
Salina	S. T. Blades, M. D.	Do.
Topeka	*Earle G. Brown, M. D.	Do.
Wichita	*D. H. Cooper, M. D.	Director of public welfare.
Kentucky:		
Ashland	James P. Riffle, M. D.	City health officer.
Covington	E. L. Busby, M. D.	Do.
Henderson	*Charles H. Voorhies, M. D.	Do.
Lexington	Ellis Owen, M. D.	Do.
Louisville	John Todd, M. D.	Do.
Newport	*Robert M. Hathaway, M. D.	Director of health.
Owensboro	*J. Ernest Fox, M. D.	Do.
Paducah		
Louisiana:		
Alexandria	J. A. Parker, M. D.	Chairman, board of health.
Baton Rouge	T. Jeff McHugh, M. D.	President, city board of health.
Lake Charles	J. G. Martin, M. D.	City health officer.
Monroe	*John Schriber, M. D.	Health officer.
New Orleans	E. L. Leckert, M. D.	Superintendent of health.
Shreveport	A. G. Heath, M. D.	President, department of health.
Maine:		
Auburn	*C. E. Williams, M. D.	Health officer.
Augusta	George A. Coombs, M. D.	Do.
Bangor	*H. D. McNeil, M. D.	Do.
Bath	*Chester S. Kingsley	City sanitarian.
Biddeford	John W. Mahoney	Health officer.
Lewiston	*L. J. Dumont, M. D.	Do.
Portland	Thomas Tetreau, M. D.	Do.
Sanford	*C. W. Blagden, M. D.	Do.
South Portland	Reginald T. Lombard, M. D.	Do.
Waterville	*William James Young, M. D.	Do.
Maryland:		
Annapolis	*Charles Hampton Jones, M. D.	Commissioner of health and registrar of vital statistics.
Baltimore	*Harvey H. Weiss	City health officer and registrar of vital statistics.
Cumberland		
Frederick	*E. C. Kefauver, M. D.	Assistant deputy State health officer.
Hagerstown	Henry R. Kritzer, M. D.	County health officer.
Massachusetts:		
Adams	*L. French, M. D.	District health officer.
Amesbury	Charles B. Kingsbury	Agent, board of health.
Arlington	*William H. Bradley	Do.
Athol	Marion B. Sibley, M. D.	Health officer.
Attleboro	William O. Hewitt, M. D.	Do.
Belmont	*H. E. Berger, Jr., C. P. H.	Agent, board of health.
Beverly	*Alonzo O. Woodbury	Health commissioner.
Boston	*Francis X. Mahoney, M. D., M. D. V.	Chairman, board of health.
Braintree	Joseph G. Bailey	Health officer.
Brockton	David B. Tuholksi, M. D.	Do.
Brookline	Francis P. Denny, M. D.	Medical inspector.
Cambridge	S. B. Kelleher, M. D.	Health officer.
Chelsea	*John F. Welch	Agent and secretary.
Chicopee	*Gertrude M. De Witt	Agent, board of health.
Clinton	*Frederick E. Murphy	Health officer.
Danvers	*Hugo Nappe	
Dedham	Clemence C. Buckner	Agent, board of health.
Easthampton	*William Gees	Health officer.
Everett	*Samuel B. Morris	Agent, board of health.
Fall River	Fred R. Brigham	Do.
Fitchburg	*E. B. Johnson	Agent and executive officer.
Framingham	*Wm. P. O'Donnell	Agent, board of health.
Gardner		
Gloucester	*Geo. P. Moore	Health agent.
Greenfield	*George T. Lennon	Agent and clerk.
Haverhill	*J. Sidney Wright	Agent and health officer.
Holyoke	John P. Kane	Chairman, board of health.
Lawrence		
Leominster	*Francis J. O'Hare	Agent, board of health.
Lowell	Michael R. Donovan, M. D.	Commissioner of public health.
Lynn	*Frederick Walmsley	Health inspector.
Malden	*John J. Cassidy	Agent, board of health.
Marlboro	William N. Lanigan, M. D.	Medical inspector.
Medford	Clarence P. Holden, M. D.	Chairman, board of health
Melrose		

City	Name of health officer	Official title
Massachusetts—Con.		
Methuen	*Albert Slack	Clerk, board of health.
Milford	James Birmingham	Sanitary inspector.
Milton	*Paul W. Kimball, M. D.	Agent, board of health.
Natick	Thomas F. Morris	Do.
New Bedford	*Wm. G. Kirschbaum	Agent and executive officer.
Newburyport	*William Thurston	Agent and clerk.
Newton	*Francis Geo. Curtis, M. D.	Chairman, board of health.
North Adams	*Douglas W. Hyde	Agent, board of health.
Northampton	George R. Turner	Do.
Northbridge	Daniel C. Duggan	Chairman, board of health.
Northwood	James J. Mulvehill	Health officer.
Palmer	J. P. Schneidler, M. D.	Chairman, board of health.
Peabody	*James J. Ray	Agent, board of health.
Pittsfield	*Willys M. Monroe, M. D.	City health officer.
Plymouth	Walter D. Shurtliff, M. D.	Do.
Quincy	Fred A. Bartlett, M. D.	Health commissioner.
Revere	*Joseph E. Lamb, M. D.	Health officer.
Salem	John J. McGrath	Agent, board of health.
Saugus	Charles E. Light	Chairman, board of health.
Somerville	Frank L. Morse, M. D.	Medical inspector and bacteriologist.
Southbridge	*Albert R. Brown	Agent, board of health.
Springfield	*Jacob R. Sackett	Do.
Taunton	T. F. Cusick, M. D.	Health officer.
Wakefield	David Taggart	Health officer and agent.
Waltham	Charles B. Fuller, M. D.	Director, public welfare commission.
Watertown	*John W. Tapper	Health officer.
Webster		
West Springfield	*J. J. Lysaght	Agent, board of health.
Westfield	R. M. Marr, M. D.	Health officer.
Weymouth	F. L. Doucet, M. D.	Clerk of board.
Winchester	*Maurice Dinneen	Health officer.
Winthrop	*H. C. Daniels	Do.
Woburn	*Edward F. Gorman	Agent and secretary.
Worcester	*Thomas F. Kenney, M. D.	Director, board of health.
Michigan:		
Adrian	Emily Stark, M. D.	Health officer.
Alpena	D. A. Cameron, M. D.	City physician.
Ann Arbor	John A. Wessinger, M. D.	Health officer.
Battle Creek	*A. A. Hoyt, M. D.	Do.
Bay City	Geo. W. Moore, M. D.	Do.
Benton Harbor	Carl A. Mitchell, M. D.	Director of public health
Cadillac	D. Raiston, M. D.	City health officer.
Detroit	*Henry F. Vaughan, D. P. H.	Commissioner of health.
Escanaba	*Harry J. Defnet, M. D.	Do.
Flint	*Robert A. Stephenson, M. D.	City health officer.
Grand Rapids	*C. C. Simmons, M. D.	Health officer.
Hamtramck	T. T. Dysarz, M. D.	Do.
Highland Park	William N. Braley, M. D.	Do.
Holland		
Ironwood	*Louis Dorpat, M. D.	Do.
Ishpeming	*George G. Barnett, M. D.	Do.
Jackson	*Floyd R. Town, M. D.	Do.
Kalamazoo	*Alvin H. Rockwell, M. D.	Do.
Lansing	*S. Rowland Hill, M. D.	Health director.
Marquette	*L. L. Younquist, M. D.	City health officer.
Monroe	Varnum C. Southworth, M. D.	City physician.
Mount Clemens	Edward G. Folsom, M. D.	Health officer.
Muskegon	R. J. Harrington, M. D.	Do.
Muskegon Heights	William Chapin, M. D.	Do.
Owosso	R. C. Mahaney, M. D.	Do.
Pontiac	*C. A. Neafie, M. D.	Director of public health.
Port Huron	*Gertrude O'Sullivan, M. D.	Health officer.
River Rouge	Claud Smith, M. D.	Do.
Saginaw	*Stuart Yntema, M. D.	Do.
Sault Ste. Marie	*John J. Griffin, M. D.	Do.
Traverse City	George A. Holliday, M. D.	Do.
Wyandotte		
Minnesota:		
Albert Lea	*P. W. Henry	Secretary and executive officer.
Austin	Clifford C. Leck, M. D.	Chairman, board of health.
Brainerd	Joseph Nicholson, M. D.	Health officer.
Duluth	Lincoln A. Sukeforth, M. D.	Director of public health.
Faribault	Frederick U. Davis, M. D.	Health commissioner.
Hibbing	Hugh W. Reynolds, M. D.	Chairman, board of health.
Mankato	Thomas C. Kelly, M. D.	Health commissioner.
Minneapolis	*Francis E. Harrington, M. D., LL. D.	Do.
Rochester	C. H. Mayo, M. D.	Health officer.
St. Cloud	*Paul Scherer, M. D.	Do.
St. Paul	*Benj. F. Simon, M. D.	Do.
Virginia	R. P. Pearsall, M. D.	Do.
Winona	W. V. Lindsay, M. D.	City physician.

*A full-time deputy health officer employed.

July 3, 1925

City	Name of health officer	Official title
Mississippi:		
Biloxi	G. F. Carroll, M. D.	City health officer.
Columbus	W. J. C. Wiemers, M. D.	Do.
Greenville	*A. J. Ware, M. D.	Do.
Hattiesburg		
Jackson	*James B. Black, M. D., C. P. H.	Director, county health department.
Laurel	*J. M. Kittrell, M. D.	Do.
Meridian	T. J. Houston, M. D.	City health officer.
Natchez	W. H. Aikman, M. D.	Do.
Vicksburg	S. Myers, M. D.	Do.
Missouri:		
Cape Girardeau	*Robert J. Wilson	Do.
Carthage	W. E. Steele, M. D.	City physician.
Columbia	W. A. Norris, M. D.	City health commissioner.
Hannibal		
Independence	H. A. Schroeder, M. D.	City health officer.
Jefferson City		
Joplin	*M. B. Harutun, M. D.	Commissioner of health.
Kansas City	Herman E. Pearse, M. D.	Do.
Moberly	C. H. Dixon, M. D.	Do.
Sedalia		
St. Joseph	William W. Gray, M. D.	Health officer.
Saint Louis	*Max C. Starkloff, M. D.	Health commissioner.
Springfield	*Lon Sharp	Do.
Webster Groves	A. W. Westrup, M. D.	Do.
Montana:		
Anaconda	Gail R. Soper, M. D.	City health officer.
Billings	J. I. Wernham, M. D.	Do.
Butte	J. B. Freund, M. D.	City physician.
Great Falls	*William H. Pickett, M. D.	Field agent, U. S. P. H. S., and health officer.
Helena	*Arthur Jordan, M. D.	Do.
Missoula	*F. D. Pease, M. D.	Health officer.
Nebraska:		
Grand Island	Frank D. Ryder, M. D.	City physician.
Hastings		
Lincoln	*Chauncey F. Chapman, M. D., Ph. G.	Superintendent of health.
North Platte	Josiah B. Redfield, M. D.	City physician.
Omaha		
Nevada:		
Reno	A. F. Adams, M. D.	Secretary, board of health.
New Hampshire:		
Berlin	*Harry F. Leeds	Health officer.
Claremont	William P. Prescott	Do.
Concord	*Charles E. Palmer	Sanitary officer.
Dover	*William E. Whiteley	Executive officer.
Keene	*Fred C. Nims	Health officer.
Manchester	Howard A. Streeter, M. D.	Do.
Nashua	P. J. McLaughlin, M. D.	Do.
Portsmouth	L. R. Hazzard, M. D.	Sanitary inspector.
Rochester		
New Jersey:		
Asbury Park	*Budd H. Ober	Health officer and registrar of vital statistics.
Atlantic City	Samuel L. Salasin, M. D.	Health officer.
Bayonne	William W. Brooke, M. D.	Do.
Belleview	*Mabel M. Clarke	Do.
Bloomfield	Joseph C. Saile, P. H. G., D. V. S.	Sanitary inspector.
Bridgeton	*Charles E. Bellows, Ph. G.	Director of public health.
Camden	*A. L. Stone, M. D.	Health officer.
Carteret	H. L. Stranoberg, M. D.	
Clifton		
Collingswood	Edw. B. Rogers, M. D.	Medical inspector.
Dover	John G. Taylor	Health officer.
East Orange	*F. J. Osborne	Health officer and registrar of vital statistics.
Elizabeth	*Louis J. Richards	Health officer.
Englewood	*John A. Manson	Sanitary inspector.
Garfield	Chas. B. Bleasby, M. D.	Health officer.
Gloucester	*L. Alonzo Beek, M. D.	Do.
Hackensack	L. Van D. Chandler	Do.
Harrison	*John T. McClure	Do.
Hoboken	J. F. Stack, M. D.	Commissioner of health.
Irvington	Paul C. Schotte	Health officer.
Jersey City	*James J. Hagan	Do.
Kearny	*Henry V. Amerman	Do.
Lodi	H. H. Brevoort, M. D.	Health inspector.
Long Branch	*R. Clifford Erickson	Health officer.
Millville		
Montclair	*Carl T. Pomeroy, C. P. H.	Do.
Morristown	*John F. Kilkenny	Sanitary inspector.
Newark	*Charles V. Craster, M. D., D. P. H.	Health officer.
New Brunswick	E. I. Cronk, M. D.	Do.
Nutley	*Eugene H. Sullivan	Do.

City	Name of health officer	Official title
New Jersey—Continued.	*Lenore Young, R. N.	Health officer and registrar of vital statistics.
Orange	John N. Ryan, M. D.	Health officer.
Passaic	*Frederick P. Lee, M. D.	Do.
Paterson	*Chas. S. Thompson, M. D. V. S.	Do.
Perth Amboy	Alma Williston, M. D.	Health inspector.
Phillipsburg	*N. J. Randolph Chandler.	Health officer.
Plainfield	*Fred N. Williams.	Do.
Rahway		
Red Bank	William F. Reynolds, D. V. M.	Sanitary inspector.
Ridgefield Park	Marine Dunn.	Do.
Rutherford	H. P. Dengler, M. D.	Health officer.
Summit	Alton S. Fell, M. D.	Do.
Trenton	J. E. L. Imbleau, M. D.	Medical health officer.
Union	*Frank A. Frederick.	Health officer.
West Hoboken	*Rudolph Kunze.	Chief inspector.
West New York	*Andrew Carney.	Health officer.
Westfield	*David E. Buckley.	Health officer and registrar.
West Orange		
New Mexico:		
Albuquerque	*James R. Scott, M. D.	Health officer.
New York:		
Albany	James W. Wiltsie, M. D.	Health officer.
Amsterdam	Julius Schiller, M. D.	Commissioner of health
Auburn	John W. Baker, M. D.	Health officer.
Batavia		
Beacon	Chalmier J. Longstreet, M. D.	Do.
Binghamton	*Francis E. Fronczak, M. D., LL. B.	Health commissioner.
Buffalo	Edward M. Bell, M. D.	Do.
Cohoes	Henry E. Elwood, Jr., M. D.	Health officer.
Corning	A. C. Knapp, M. D.	Do.
Cortland	Geo. E. Ellis, M. D.	Do.
Dunkirk	Reeve B. Howland, M. D.	Do.
Elmira	*D. W. Hardy, M. D.	Do.
Endicott	Wm. H. Runcie, M. D., D. P. H.	Health commissioner.
Freeport	C. L. Fessenden, M. D.	Health officer.
Fulton	C. W. Grove, M. D.	Do.
Geneva	*Virgil D. Seleck, M. D., C. P. H.	Do.
Glens Falls	Alexander L. Johnson, M. D.	Do.
Gloversville	James W. Graves, M. D.	Do.
Herkimer	B. R. Wakeman, M. D.	Do.
Hornell	Charles R. Skinner, M. D.	Do.
Hudson	Frank B. Conterman, M. D.	Do.
Ilion	*Lewell T. Genung, M. D.	Do.
Ithica	John J. Mahoney, M. D.	Superintendent of public health.
Jamestown	Rollin O. Crysler, M. D.	Health officer.
Johnson City	F. M. Neuendorf, M. D.	City physician and health officer
Johnstown	Daniel Connally, M. D.	Health officer.
Kingston	A. S. Culkowski, M. D.	Do.
Lackawanna	A. B. Santry, M. D.	Do.
Little Falls	Thomas E. Spalding, M. D.	City physician.
Lockport	H. J. Shelley, M. D.	Health officer.
Middletown	W. H. Purdy, M. D.	Commissioner of health.
Mount Vernon		
New Rochelle	*Frank J. Monaghan, M. D.	Do.
New York	Thomas J. Burke, M. D.	Health officer.
Newburgh	Edward E. Gillick, M. D.	Do.
Niagara Falls	Henry C. Lapp, M. D.	Do.
North Tonawanda	John W. Benton, M. D.	Commissioner of health.
Ogdensburg	W. E. MacDuffie, M. D.	Health officer.
Olean	Nelson D. Brooks, M. D.	Do.
Oneida	Geo. W. Augustin, M. D.	Do.
Oneonta	Amos Osborn Squire, M. D.	Do.
Ossining	Harvey S. Albertson, M. D.	Do.
Oswego	Fred A. Snowden, M. D.	Do.
Peekskill	Leo A. Schiff, M. D.	Do.
Plattsburg	Wm. J. Sheehan, M. D.	Do.
Port Chester	G. Otto Pobe, M. D.	Do.
Port Jervis	*Wm. G. Conger, M. D.	Do.
Poughkeepsie	D. F. Hannon, M. D.	Do.
Rensselaer	George W. Goler, M. D.	Do.
Rochester	Roy J. Marshall, M. D.	Do.
Rome	L. D. Gunn, M. D.	Health commissioner.
Salamanca	Charles B. Small, M. D.	City health officer.
Saratoga Springs	J. H. Collins, M. D.	Commissioner of health.
Schenectady	Thomas P. Farmer, M. D.	Commissioner of health.
Syracuse	John T. Harris, M. D.	Health officer.
Tonawanda	Wm. N. Champagne, M. D.	Do.
Troy	Hugh H. Shaw, M. D.	Do.
Utica	Maurice D. Barnette, M. D.	Do.
Watertown	Charles A. Birmingham, M. D.	Do.
Watervliet	Edwin G. Ramsdell, M. D.	Do.
White Plains	Clarence W. Buckmaster, M.D., C.P.H.	Commissioner of health.
Yonkers		

City	Name of health officer	Official title
North Carolina:		
Asheville	*Dan E. Sevier, M. D.	Health officer.
Charlotte	*Wilbur A. McPhaul, M. D.	Do.
Concord		
Durham	J. H. Epperson	Superintendent of health.
Gastonia		
Goldsboro	*L. W. Corbett, M. D.	Do.
Greensboro	*C. C. Hudson, M. D.	Health officer.
High Point	S. S. Coe, M. D.	City physician.
Kinston	*Robert S. McGahey, M. D.	County health officer.
New Bern	*D. E. Ford, M. D.	Do.
Raleigh	*A. C. Bullis	Do.
Rocky Mount		
Salisbury	*C. W. Armstrong, M. D.	Do.
Wilmington	*John H. Hamilton, M. D.	Do.
Wilson	*L. J. Smith, M. D.	City health officer.
Winston-Salem	*R. L. Carlton, M. D.	Do.
North Dakota:		
Fargo	*B. K. Kilbourne, M. D.	Do.
Grand Forks		
Minot	Frank E. Wheeler, M. D.	Do.
Ohio:		
Akron	*Donald D. Shira, M. D.	Director of health.
Alliance	Floyd R. Stamp, M. D.	Health commissioner.
Ashland	George W. Mehl, M. D.	Director of welfare and commissioner of health.
Ashtabula	Azro J. Pardee, M. D.	Health officer.
Barberton	W. A. Mansfield, M. D.	Health commissioner.
Bellaire	W. J. Shepard, M. D.	Do.
Bucyrus	A. H. McCrory, M. D.	Do.
Cambridge	Clyde L. Vorhes, M. D.	Do.
Canton	F. M. Sayre, M. D.	Health officer.
Chillicothe	G. E. Robbins, M. D.	Commissioner of health.
Cincinnati	*William H. Peters, M. D.	Do.
Cleveland	*Harry L. Rockwood, M. D.	Do.
Cleveland Heights	*Robert Lockhart, M. D.	Director of health.
Columbus	*James A. Beer, M. D.	Health commissioner.
Conneaut	Inez Hyatt, M. D.	Do.
Coshocton	*David M. Criswell, M. D.	Do.
Cuyahoga Falls	R. H. Markwith, M. D.	Do.
Dayton	*A. O. Peters, M. D.	Health officer.
East Cleveland	George W. Stober, M. D.	Director of health.
East Liverpool	*John A. Fraser, M. D.	Health commissioner
East Youngstown	James S. Mariner, M. D.	Do.
Elyria	G. E. French, M. D.	Do.
Findlay	*Edward W. Misamore, M. D.	Do.
Fostoria	*W. N. Caldwell	Health officer.
Fremont	E. L. Vermilyea, M. D.	Health commissioner
Hamilton	M. F. Vereker, M. D.	Do.
Ironton	O. U. O'Neill, M. D.	Do.
Lakewood	Wallace J. Benner, M. D.	Do.
Lancaster	Clifford B. Snider, M. D.	Do.
Lima	James B. Poling, M. D.	Do.
Lorain	Valloyd Adair, M. D.	Do.
Mansfield	*William De Kleine, M. D.	Do.
Marietta	J. W. Donaldson, M. D.	Do.
Marion	W. J. Weiser, M. D.	Do.
Martins Ferry	*Charles Keller	Do.
Massillon	John H. Williams	Do.
Middletown	G. D. Lummis, M. D.	Do.
Newark	W. H. Knauss, M. D.	Do.
New Philadelphia	*Joseph Blickenstorfer, M. D.	Do.
Niles	W. A. Werner, M. D.	Do.
Norwood	*H. J. Wittenberg, M. D.	Do.
Piqua	J. G. Freshour, M. D.	Do.
Portsmouth	O. D. Tatje, M. D.	Do.
Salem	*Thomas T. Church, M. D.	Do.
Sandusky	*Fred M. Houghtaling, M. D.	Director of public health.
Springfield	*Oscar M. Craven, M. D.	Health commissioner.
Steubenville	*Theodore W. Smith	Do.
Tiffin	J. A. Gosling, M. D.	Do.
Toledo	Daniel W. Iford, M. D.	Do.
Warren		
Youngstown	H. E. Welch, M. D.	Do.
Zanesville	Beatrice Todd Hagen, M. D.	Superintendent of health and sanitation.
Oklahoma:		
Ardmore	Amber Y. Easterwood, M. D.	City health officer.
Bartlesville	Elizabeth Chamberlain, M. D.	Superintendent of health.
Chickasha	E. L. Dawson, M. D.	Do.
Enid		
Guthrie	Wm. C. Miller, M. D.	City health officer.
McAlester	W. C. Graves, M. D.	Do.
Muskogee	F. W. Ewing, M. D.	Do.

*Commissioner of health for Kenmore and Summit County.

City	Name of health officer	Official title
Oklahoma—Continued.		
Omulgee.	*W. H. Miles, M. D.	Director of health.
Oklahoma City.	P. K. Lewis, M. D.	Superintendent of health.
Sapulpa.	*T. C. Sanders, M. D.	City health officer.
Shawnee.	David A. Beard, M. D.	Supt. city health department.
Oregon:		
Astoria.	N. S. Vernon, M. D.	County health officer.
Eugene.	S. M. Kinon, M. D.	City health officer.
Portland.	*John G. Abele, M. D.	Do.
Salem.	William B. Mott, M. D.	Do.
Pennsylvania:		
Allentown.	*J. Treichler Butts, M. D., D. D. S.	Health officer.
Altoona.	*T. G. Herbert.	Chief, bureau of health.
Ambridge.		
Beaver Falls.	*Nelson W. Osmond.	Sanitary officer.
Berwick.	*C. W. Shannon.	Health officer.
Bethlehem.	*Ed. Brader.	Do.
Braddock.	*Jas. E. Mills.	Do.
Bradford.	*Carl L. Peterson.	Do.
Bristol.	John M. Wright.	Do.
Butler.	*J. Fred Leetch.	Do.
Cannonsburg.	*J. Mart Templeton.	Do.
Carbondale.	*W. J. Morgan.	Sanitary officer.
Carlisle.	*A. P. Lissman.	Health officer.
Carnegie.	Jas. Lewis.	Do.
Carrick.	William Windenknecht.	Do.
Chambersburg.	Frank J. Croft.	Do.
Charleroi.	*W. M. Darby.	Health inspector.
Chester.	*John W. Shaw.	Health officer.
Clairton.	*Wm. P. Davidson.	Do.
Coatesville.	*Charles V. Peace, V. M. D., Ph. G.	Do.
Columbia.	G. M. Rodenhauser.	Do.
Connellsville.	*John Irwin.	Do.
Dickson City.	*Frank J. Meehan.	Do.
Donora.		
DuBois.	Luther W. Quinn, M. D.	Do.
Dunmore.		
Duquesne.		
Easton.	J. James Condran, M. D.	Do.
Elwood City.	*Louis Young.	Do.
Erie.	*J. W. Wright, M. D.	Do.
Farrell.	*Wm. C. Heinz.	Do.
Franklin.		
Greensburg.	*T. Ray Hunter.	Do.
Harrisburg.	John M. J. Raunick, M. D.	Do.
Hazelton.	*P. J. Bonner.	Do.
Homestead.	James L. King.	Do.
Jeanette.	*A. T. Coon.	Do.
Kingston.	*J. F. Seward.	Do.
Lancaster.	*Benjamin F. Charles.	Do.
Latrobe.	Alex Gibson.	Do.
Lebanon.	Frank B. Witmer, M. D.	Do.
Lewistown.	*H. E. Fetterolf.	Do.
McKeesport.	*Daniel F. Marsh.	Do.
McKees Rocks.		
Mahanoy.	*John Sullivan.	Do.
Meadville.		
Monessen.	*Francis E. Gibson.	Inspector public safety.
Nanticoke.	*Edward J. Humphreys.	Health officer.
New Castle.	William L. Steen, M. D.	Do.
New Kensington.		
Norristown.	*Chas. E. White.	Do.
North Braddock.	*Robert M. Sylves.	Do.
Oil City.	*W. J. Lewis.	Do.
Old Forge.		
Olyphant.	*James F. O'Malley.	Do.
Philadelphia.	*A. C. Cairns, M. D.	Chief of bureau of health.
Phoenixville.	Allen L. Bevan.	Do.
Pittsburgh.	*Carey J. Vaux, M. D.	Director.
Pittston.	*Matthew A. Hurst.	Health officer.
Plymouth.	H. G. Templeton, M. D.	Do.
Pottstown.		
Pottsville.	*O. L. Kleckner.	Do.
Punxsutawney.	J. Frank Boney.	Do.
Reading.	*Ira J. Hain, M. D.	Do.
Scranton.	F. R. Wheelock, M. D.	Director.
Sharon.	*L. C. Brainard.	Sanitary officer.
Shenandoah.		
Steelton.	*E. G. Butler.	Health officer.
Sunbury.	*Victor A. Koble.	Do.
Swissvale.	*F. H. Richardson.	Do.
Tamaqua.	Lamont Perrine.	Do.
Taylor.	E. E. Edwards, M. D.	Do.

City	Name of health officer	Official title
Pennsylvania—Contd.		
Uniontown	*W. C. Hall	Health officer.
Vandergrift	*J. Elmer Spang	Do.
Warren	*R. N. Brown	Do.
Washington	*J. G. Dinsmore	Do.
Waynesboro	*Percy H. Snowberger	Secretary board of health.
West Chester	Jos. Scuttlegood, M. D.	City physician.
Wilkes-Barre	G. A. Clark, M. D.	Health officer.
Wilkinsburg	*J. M. Snyder	Do.
Williamsport	Robert F. Trainer, M. D.	Do.
Windber	S. W. McMullen	Do.
Woodlawn	*James E. Tanner	Do.
York	J. Frank Small, M. D.	Director of public health.
Rhode Island:		
Bristol	John H. Magee, P. H. D.	Health officer.
Central Falls	A. R. V. Fenwick, M. D.	Superintendent of health.
Cranston	Daniel S. Latham, M. D.	Do.
Cumberland	Stephen A. Kenney, M. D.	Health officer.
East Providence	W. H. T. Hamill, M. D.	Do.
Newport	*J. W. Sampson	Executive officer board of health.
Pawtucket	Florian A. Ruest, M. D.	Superintendent of health.
Providence	*Charles V. Chapin, M. D.	Do.
Warwick	H. Barton Bryer, M. D.	Health officer.
West Warwick	Samuel C. Webster, M. D., Ph. G.	Superintendent of health.
Westerly	Wm. A. Bernard, M. D.	Health officer.
Woonsocket		
South Carolina:		
Anderson	*E. R. Van de Grift, D. V. M.	Do.
Charleston	*J. Merceir Green, M. D.	Do.
Columbia	M. M. Rice, M. D.	Do.
Florence	*P. H. Brigham, M. D., D. D. S.	Health commissioner.
Greenville	*Irving Sydnor Barksdale, M. D.	Do.
Spartanburg		
Sumter	*John R. Sumter	Health officer.
South Dakota:		
Aberdeen	*George M. Boteler, M. D.	Do.
Sioux Falls	*Albert E. Campbell, M. D.	Do.
Watertown		
Tennessee:		
Chattanooga	*C. B. Crittenden, M. D.	Director of health.
Jacksonville	J. P. Randall, M. D.	City physician.
Johnson City	*Marvin F. Haygood, M. D., C. P. H.	City health officer.
Knoxville	*J. J. Durrett, M. D., Ph. G.	Superintendent of health.
Memphis	*W. E. Hibbett, M. D.	City health officer.
Nashville		
Texas:		
Abilene	Scott W. Hollis, M. D.	Do.
Amarillo	A. H. Lindsay, M. D.	City physician.
Austin	Z. T. Martin, M. D.	Health officer.
Beaumont	Dru McMickin, M. D.	Do.
Brownsville		
Cleburne	Jas. D. Osborn, M. D.	Do.
Corpus Christi	A. H. Speer, M. D.	Do.
Corsicana		
Dallas	*Noah W. Andrews, M. D.	Director of public health.
Del Rio	B. F. Orr, M. D.	City health officer.
Denison	Alex. W. Acheson, M. D.	Do.
Eastland	E. R. Townsend, M. D.	Do.
El Paso	*John William Brown, M. D., C. P. H.	Do.
Fort Worth		
Galveston	Walter Kleberg, M. D.	Do.
Greenville	William M. Dickens, M. D.	Do.
Houston	*Arthur H. Flickwir, M. D.	Do.
Laredo		
Marshall		
Orange		
Palestine		
Paris	Lewis Melvin Gooch, M. D.	Do.
Port Arthur	J. P. Read, M. D.	Do.
Ranger		
San Angelo	A. C. De Long, M. D.	Do.
San Antonio	Wm. A. King, M. D.	Do.
Sherman	J. A. Swafford, M. D.	Do.
Temple		
Texarkana	Wm. Hibbitts, M. D.	Do.
Tyler	Albert Woldert, M. D.	Do.
Waco	R. F. Minnock, M. D.	Do.
Wichita Falls	James M. Whitworth, M. D.	Do.
Utah:		
Logan	*H. Earl Belnap, M. D.	Health commissioner.
Ogden		
Provo	Arnold E. Robinson, M. D.	City physician.
Salt Lake City	Willard Christopherson, M. D.	Health commissioner.

City	Name of health officer	Official title
Vermont:	Barre..... Marshall Dana Lamb, M. D..... Bennington..... Joseph M. Ayres..... Burlington..... J. W. Courtney, M. D..... Rutland.....	Health officer. Do. Do. Do.
Virginia:	Alexandria..... Louis E. Foulks, M. D..... Charlottesville..... G. B. Young, M. D..... Danville..... R. W. Garnett, M. D..... Lynchburg..... Mosby G. Perrow..... Newport News..... Samuel Downing, M. D..... Norfolk..... Fowhatan S. Schenck, M. D..... Petersburg..... Robert A. Martin, M. D..... Portsmouth..... Lonsdale J. Roper, M. D..... Richmond..... W. Brownley Foster, M. D..... Roanoke..... Coleman B. Ransone, M. D.....	Do. Do. Do. Director public welfare. Acting health officer. Health commissioner. Do. Director of public welfare. Do. Health officer.
Washington:	Aberdeen..... B. O. Swinehart, M. D..... Bellingham..... W. W. Ballaine, M. D..... Bremerton..... T. H. Holmes, M. D..... Everett..... J. Spencer Purdy, M. D..... Hoquiam..... H. C. Watkins, M. D..... Seattle..... Geo. N. McLoughlin, M. D..... Spokane..... Ralph Hendricks, M. D..... Tacoma..... Charles F. Engels, M. D..... Vancouver..... R. D. Wiswall, M. D..... Walla Walla..... Joseph P. Kane, M. D.....	Do. Do. Do. Do. Do. Commissioner of health. Health officer. Do. City physician. City health officer.
West Virginia:	Bluefield..... J. B. Lohan, M. D..... Charleston..... Robert Linn Osborn, M. D..... Clarksburg..... J. A. Jamison, M. D.....	Health commissioner. City physician. Health officer.
Wisconsin:	Fairmont..... Arthur Bruce Eagle, M. D..... Martinsburg..... R. H. Edmondson, M. D..... Morgantown..... V. D. Guittard, M. D..... Moundsville..... Parkersburg..... Wheeling..... William Hay McLain, M. D..... Appleton..... Wm. C. Felton, M. D..... Ashland..... C. O. Hertzman, M. D..... Beloit..... Lewis M. Field, M. D..... Eau Claire..... J. F. Farr, M. D..... Fond du Lac..... A. C. Dana, M. D..... Green Bay..... George F. Goggins, M. D..... Janesville..... Fred B. Welch, M. D..... Kenosha..... Gustave Windesheim, M. D..... La Crosse..... Arthur M. Murphy..... Madison..... A. M. Carr, M. D., D. P. H..... Manitowoc..... Max Staehle, M. D..... Marinette..... S. Berglund, M. D..... Milwaukee..... John P. Koehler, M. D..... Oshkosh..... A. H. Broche, M. D..... Racine..... W. W. Bauer, M. D..... Sheboygan..... Joseph C. Elers, M. D..... Stevens Point..... F. A. Southwick, M. D..... Superior..... P. G. McGill, M. D..... Waukesha..... Geo. E. Peterson, M. D..... Wausau..... L. F. Bugbee..... West Allis..... S. C. McCorkle, M. D.....	Health commissioner. Field agent, U. S. P. H. S. Health commissioner. Health officer. Executive officer, department of public health. Do. Do. Health officer. Commissioner of health. Health officer. Director of health. Health officer. Do. Commissioner of health. Health officer. Commissioner of health. Health officer. Do. Commissioner of public health. Health commissioner. Do. Do. Health officer. Health commissioner.
Wyoming:	Casper..... H. Garst, M. D..... Cheyenne..... J. H. Conway, M. D.....	Director, county health department. County health officer.

DEATHS DURING WEEK ENDED JUNE 20, 1925

Summary of information received by telegraph from industrial insurance companies for week ended June 20, 1925, and corresponding week of 1924. (From the Weekly Health Index, June 23, 1925, issued by the Bureau of the Census, Department of Commerce)

	Week ended June 20, 1925	Corresponding week, 1924
Policies in force.....	60,266,214	56,391,496
Number of death claims.....	12,057	9,646
Death claims per 1,000 policies in force, annual rate.....	10.4	8.9

Deaths from all causes in certain large cities of the United States during the week ended June 20, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, June 23, 1925, issued by the Bureau of the Census, Department of Commerce)

City	Week ended June 20, 1925		Annual death rate per 1,000 corre- sponding week, 1924	Deaths under 1 year		Infant mortality rate week ended June 20, 1925 ¹
	Total deaths	Death rate ²		Week ended June 20, 1925	Corre- sponding week, 1924	
Total (66 cities).....	6,077	11.4	11.8	716	758	55
Akron.....	27			5	7	56
Albany ³	18	7.8	15.4	2	2	44
Atlanta.....	58			7	8	55
Baltimore ⁴	192	12.6	12.4	16	22	48
Birmingham.....	53	13.4	18.7	12	7	58
Boston.....	179	11.9	13.8	22	24	58
Bridgeport.....	24			1	6	16
Buffalo.....	144	13.6	12.1	19	17	77
Cambridge.....	18	8.3	14.0	2	1	34
Camden.....	30	12.2	14.0	5	5	80
Chicago ⁵	563	9.8	10.9	63	86	56
Cincinnati.....	105	13.4	14.4	8	11	47
Cleveland.....	153	8.5	9.8	19	15	47
Columbus.....	59	11.0	12.4	4	9	37
Dallas.....	68	18.3	13.6	9	9	55
Dayton.....	37	11.2	8.6	1	4	16
Denver.....	75	13.9	10.8	7	9	55
Des Moines.....	24	8.4	11.1	1	5	17
Detroit.....	265			37	39	64
Duluth.....	14	6.6	10.6	1	5	22
Erie.....	20			2	3	39
Fall River ³	21	9.0	11.6	2	3	29
Flint.....	13	3.2	6.7	4	3	63
Fort Worth.....	29	9.9	11.6	11	3	55
Grand Rapids.....	36	12.3	8.8	2	2	31
Houston.....	59	18.7	15.3	10	8	55
Indianapolis.....	90	13.1	10.8	8	8	57
Jersey City.....	57	9.4	12.7	7	8	50
Kansas City, Kans.....	23	9.7	10.3	3	3	63
Kansas City, Mo.....	79	11.2	11.2	15	8	55
Los Angeles.....	210			23	27	63
Louisville.....	76	15.3	12.7	7	5	61
Lowell.....	19	8.5	10.8	1	4	17
Lynn.....	26	12.9	7.5	2	4	53
Memphis.....	82	24.5	19.1	12	7	55
Milwaukee.....	110	11.4	10.1	9	16	42
Minneapolis.....	96	11.8	6.7	11	6	59
Nashville ⁴	35	13.4	16.9	4	4	55
New Bedford.....	24	9.3	7.1	4	3	66
New Haven.....	33	9.6	9.8	3	2	39
New Orleans.....	156	19.6	17.7	33	29	55
New York.....	1,237	10.6	11.1	149	146	60
Bronx borough.....	139	8.0	9.3	20	11	69
Brooklyn borough.....	416	9.7	9.9	51	48	52
Manhattan borough.....	531	12.3	13.3	58	65	60
Queens borough.....	100	9.1	9.5	14	18	63
Richmond borough.....	51	19.9	12.8	6	4	107

¹Annual rate per 1,000 population.

²Deaths under 1 year per 1,000 births—an annual rate based on deaths under 1 year for the week and estimated births for 1924. Cities left blank are not in the registration area for births.

³Data for 64 cities.

⁴Data for 62 cities.

⁵Deaths for week ended Friday, June 19, 1925.

Deaths from all causes in certain large cities of the United States during the week ended June 20, 1925, infant mortality, annual death rate, and comparison with corresponding week of 1924. (From the Weekly Health Index, June 23, 1925, issued by the Bureau of the Census, Department of Commerce)—Continued

City	Week ended June 20, 1925		Annual death rate per 1,000 corresponding week, 1924	Deaths under 1 year		Infant mortality rate week ended June 20, 1925
	Total deaths	Death rate		Week ended June 20, 1925	Corresponding week, 1924	
Newark, N. J.	92	10.6	10.3	12	12	53
Norfolk	30			4	4	74
Oakland	43	8.8	8.2	4	4	46
Oklahoma City	14			2	2	
Omaha	39	9.6	12.8	6	9	62
Paterson	26	9.6	13.0	7	2	118
Philadelphia	435	11.5	12.3	52	53	66
Pittsburgh	148	12.2	13.7	11	30	37
Portland, Oreg.	84	15.6	11.1	11	4	110
Providence	64	13.6	13.7	3	9	24
Richmond	49	13.7	15.3	4	16	48
Rochester	51	8.0	12.2	3	5	24
St. Louis	197	12.5	12.1	25	18	
St. Paul	48	10.2	12.4	4	4	34
Salt Lake City ¹	26	10.4	12.6	5	7	78
San Antonio	77	20.3	17.2	22	16	
San Diego	28	14.5		3		70
San Francisco	121	11.3	11.4	6	9	35
Schenectady	16	8.2	10.4	1	1	28
Seattle	52			5	5	58
Somerville	16	8.2	7.3	1	0	27
Spokane	26	12.4	13.0	2	3	45
Springfield, Mass.	27	9.2	13.0	2	6	30
Syracuse	41	11.2	10.5	6	4	75
Tacoma	24	12.0	10.1	3	2	70
Toledo	54	9.8	13.0	2	6	18
Trenton	42	16.6	14.5	3	0	49
Utica	28	13.6		1		21
Washington, D. C.	141	14.8	12.0	15	14	84
Waterbury	19			2	4	43
Wilmington, Del.	20	8.5	13.0	1	3	23
Worcester	39	10.2	10.4	7	4	81
Yonkers	20	9.3	12.8	2	4	44
Youngstown	22	7.2	11.1	4	8	49

¹ Deaths for week ended Friday June 19, 1925.

PREVALENCE OF DISEASE

No health department, State or local, can effectively prevent or control disease without knowledge of when, where, and under what conditions cases are occurring

UNITED STATES

CURRENT WEEKLY STATE REPORTS

These reports are preliminary, and the figures are subject to change when later returns are received by the State health officers

Reports for Week Ended June 27, 1925

ALABAMA		CALIFORNIA	
	Cases		Cases
Cerebrospinal meningitis	3	Botulism—Mendocino County	1
Chicken pox	24	Cerebrospinal meningitis—San Francisco	1
Diphtheria	11	Diphtheria	59
Dysentery	39	Glanders—Merced County	1
Influenza	6	Influenza	11
Malaria	68	Lethargic encephalitis:	
Mumps	21	Kern County	1
Paratyphoid fever	3	San Francisco	1
Pellagra	51	Measles	49
Pneumonia	27	Poliomyelitis:	
Poliomyelitis	1	Alameda	1
Scarlet fever	25	Beaumont	1
Smallpox	33	Los Angeles	7
Tetanus	1	Los Angeles County	3
Tuberculosis	32	Modesto	1
Typhoid fever	83	Oakland	1
Whooping cough	66	Orange	1
ARIZONA			
Measles	1	San Bernardino	1
Poliomyelitis	1	San Diego	1
Scarlet fever	3	San Francisco	8
Typhoid fever	3	Scarlet fever	58
Whooping cough	2	Smallpox:	
ARKANSAS			
Chicken pox	6	Los Angeles	36
Diphtheria	4	Los Angeles County	19
Hookworm disease	1	Oakland	9
Influenza	5	San Diego	6
Malaria	86	Scattering	29
Measles	2	Typhoid fever	11
Mumps	16	COLORADO	
Pellagra	28	(Exclusive of Denver)	
Poliomyelitis	1	Chicken pox	7
Scarlet fever	2	Diphtheria	17
Smallpox	2	Measles	1
Tuberculosis	6	Mumps	13
Typhoid fever	30	Pneumonia	1
Whooping cough	16	Poliomyelitis	1
		Scarlet fever	14
		Smallpox	1

COLORADO—continued		Cases	ILLINOIS—continued		Cases
Tuberculosis	14		Smallpox	17	
Typhoid fever	3		Tuberculosis	256	
Whooping cough	12		Typhoid fever:		
			Cook County	4	
CONNECTICUT		17	Ogle County	7	
Chicken pox	17		Scattering	26	
Diphtheria	18		Whooping cough	296	
German measles	3		INDIANA		
Influenza	1		Chicken pox	51	
Lethargic encephalitis	1		Diphtheria	17	
Malaria	1		Influenza	3	
Measles	193		Measles	135	
Mumps	5		Mumps	1	
Pneumonia (all forms)	26		Pneumonia	3	
Scarlet fever	25		Scarlet fever	59	
Tuberculosis (all forms)	45		Smallpox	50	
Typhoid fever	3		Tuberculosis	48	
Whooping cough	95		Typhoid fever	18	
DELAWARE			Whooping cough	79	
Measles	6		IOWA		
Smallpox	2		Diphtheria	8	
Tuberculosis	5		Scarlet fever	8	
Typhoid fever	1		Smallpox	13	
FLORIDA			KANSAS		
Diphtheria	15		Chicken pox	23	
Influenza	1		Diphtheria	18	
Malaria	23		Influenza	5	
Measles	2		Lethargic encephalitis	1	
Mumps	18		Measles	4	
Poliomyelitis	1		Mumps	42	
Scarlet fever	1		Pneumonia	18	
Smallpox	1		Scarlet fever	28	
Tuberculosis	27		Septic sore throat	6	
Typhoid fever	22		Smallpox	11	
Whooping cough	5		Tuberculosis	59	
GEORGIA			Typhoid fever	19	
Chicken pox	17		Whooping cough	124	
Conjunctivitis	2		LOUISIANA		
Diphtheria	8		Cerebrospinal meningitis	1	
Dysentery	61		Diphtheria	6	
German measles	2		Leprosy	1	
Hookworm disease	5		Malaria	14	
Influenza	21		Paratyphoid fever	2	
Lethargic encephalitis	1		Pneumonia	20	
Malaria	128		Scarlet fever	8	
Measles	7		Smallpox	8	
Mumps	22		Tuberculosis	40	
Paratyphoid fever	7		Typhoid fever	89	
Pellagra	26		Whooping cough	11	
Pneumonia	26		MAINE		
Scarlet fever	5		Chicken pox	14	
Septic sore throat	1		Diphtheria	4	
Smallpox	8		German measles	1	
Tuberculosis	33		Influenza	2	
Typhoid fever	128		Measles	5	
Whooping cough	69		Mumps	68	
ILLINOIS			Pneumonia	7	
Diphtheria:			Scarlet fever	6	
Cook County	48		Tuberculosis	9	
Scattering	21		Typhoid fever	3	
Influenza	13		Whooping cough	4	
Lethargic encephalitis—Boone County	1				
Measles	549				
Pneumonia	121				
Scarlet fever:					
Cook County	77				
Scattering	37				

July 3, 1925

MARYLAND¹

	Cases
Chicken pox	25
Diphtheria	23
Dysentery	5
German measles	3
Influenza	4
Lethargic encephalitis	1
Malaria	1
Measles	48
Mumps	56
Pneumonia:	
Broncho.	20
Lobar	6
Poliomyelitis	1
Scarlet fever	17
Tuberculosis	68
Typhoid fever	11
Whooping cough	82

MASSACHUSETTS

Actinomycosis	1
Cerebrospinal meningitis	2
Chicken pox	75
Conjunctivitis (suppurative)	10
Diphtheria	79
German measles	71
Influenza	4
Malaria	2
Measles	533
Mumps	37
Ophthalmia neonatorum	16
Pneumonia (lobar)	33
Poliomyelitis	1
Scarlet fever	96
Tetanus	2
Trachoma	1
Tuberculosis:	
Pulmonary	115
Other forms	85
Typhoid fever	7
Whooping cough	116

MICHIGAN

Diphtheria	82
Measles	327
Pneumonia	68
Scarlet fever	185
Smallpox	22
Tuberculosis	86
Typhoid fever	8
Whooping cough	157

MINNESOTA

Chicken pox	85
Diphtheria	50
Influenza	3
Lethargic encephalitis	2
Measles	25
Pneumonia	2
Poliomyelitis	7
Scarlet fever	91
Smallpox	6
Tuberculosis	45
Typhoid fever	2
Whooping cough	24

MISSISSIPPI

	Cases
Cerebrospinal meningitis	1
Diphtheria	2
Scarlet fever	4
Smallpox	7
Typhoid fever	48

MISSOURI

(Exclusive of Kansas City)

Anthrax	2
Cerebrospinal meningitis	2
Chicken pox	13
Diphtheria	23
Measles	8
Mumps	15
Pneumonia	1
Poliomyelitis	1
Scarlet fever	53
Smallpox	14
Tetanus	2
Trachoma	11
Tuberculosis	48
Typhoid fever	9
Whooping cough	47

MONTANA

Chicken pox	5
German measles	6
Measles	2
Mumps	23
Poliomyelitis	1
Scarlet fever	14
Smallpox	1
Tuberculosis	6
Typhoid fever	1
Whooping cough	8

NEW JERSEY

Chicken pox	58
Diphtheria	58
Dysentery	1
Influenza	1
Measles	198
Pneumonia	48
Poliomyelitis	7
Scarlet fever	80
Smallpox	1
Trachoma	1
Typhoid fever	6
Whooping cough	136

NEW MEXICO

Diphtheria	4
Mumps	1
Pneumonia	2
Scarlet fever	2
Smallpox	1
Tuberculosis	27
Tularaemia	1
Typhoid fever	10
Whooping cough	10

¹ Week ended Friday.

NEW YORK		TEXAS	
(Exclusive of New York City)		Cases	Cases
Cerebrospinal meningitis	3	Chicken pox	28
Diphtheria	85	Diphtheria	15
Influenza	1	Dysentery (epidemic)	21
Lethargic encephalitis	6	Measles	5
Measles	402	Mumps	17
Pneumonia	71	Paratyphoid fever	4
Poliomyelitis	4	Pellagra	7
Scarlet fever	95	Pneumonia	9
Smallpox	3	Poliomyelitis	2
Typhoid fever	11	Rabies in man	1
Whooping cough	131	Scarlet fever	22
NORTH CAROLINA		Smallpox	21
Chicken pox	34	Tuberculosis	25
Diphtheria	18	Typhoid fever	27
German measles	1	Typhus fever	4
Measles	7	Whooping cough	71
Poliomyelitis	4	VERMONT	
Scarlet fever	8	Chicken pox	16
Smallpox	34	Diphtheria	2
Typhoid fever	43	Measles	14
Whooping cough	61	Mumps	13
OKLAHOMA		Scarlet fever	4
(Exclusive of Oklahoma City and Tulsa)		Whooping cough	3
Cerebrospinal meningitis—Osage County	1	VIRGINIA	
Chicken pox	7	Smallpox—Louisa County	2
Diphtheria	5	WASHINGTON	
Influenza	11	Chicken pox	61
Malaria	52	Diphtheria	12
Measles	3	German measles	2
Mumps	8	Lethargic encephalitis	1
Pneumonia	11	Measles	2
Poliomyelitis—Cotton County	1	Mumps	36
Scarlet fever	14	Poliomyelitis—Pacific County	1
Smallpox	8	Scarlet fever	7
Typhoid fever:		Smallpox	33
Stephens County	8	Tuberculosis	61
Washington County	20	Typhoid fever	7
Scattering	61	Whooping cough	81
Whooping cough	78	WEST VIRGINIA	
OREGON		Diphtheria	1
Cerebrospinal meningitis	1	Scarlet fever	8
Chicken pox	7	Smallpox	5
Diphtheria:		Typhoid fever	5
Portland	11	WISCONSIN	
Scattering	8	Milwaukee:	
Measles	6	Chicken pox	10
Mumps	16	Diphtheria	13
Pneumonia	13	German measles	7
Scarlet fever	16	Measles	69
Septic sore throat	11	Mumps	9
Smallpox	15	Pneumonia	7
Tuberculosis	11	Scarlet fever	4
Typhoid fever	5	Smallpox	3
Whooping cough	18	Tuberculosis	24
SOUTH DAKOTA		Typhoid fever	1
Chicken pox	1	Whooping cough	43
Diphtheria	2	Scattering:	
Scarlet fever	8	Cerebrospinal meningitis	1
Smallpox	1	Chicken pox	66
Whooping cough	6	Diphtheria	24

* Deaths.

WISCONSIN—continued

	Cases
Scattering—Continued.	
Influenza.....	13
Measles.....	115
Mumps.....	68
Pneumonia.....	6
Scarlet fever.....	55
Smallpox.....	27
Tuberculosis.....	17
Typhoid fever.....	3

WYOMING

	Cases
Whooping cough.....	71
Chicken pox.....	5
Impetigo contagiosa.....	1
Influenza.....	1
Mumps.....	4
Rocky Mountain spotted fever.....	1
Scarlet fever.....	5
Typhoid fever.....	2
Whooping cough.....	3

Reports for Week Ended June 20, 1925

ALABAMA

	Cases
Chicken pox.....	14
Diphtheria.....	7
Dysentery.....	35
Influenza.....	5
Malaria.....	63
Menses.....	9
Mumps.....	13
Paratyphoid fever.....	4
Pellagra.....	33
Pneumonia.....	16
Poliomyelitis.....	4
Scarlet fever.....	23
Smallpox.....	67
Tuberculosis.....	27
Typhoid fever.....	70
Whooping cough.....	24

CALIFORNIA

Cerebrospinal meningitis:	
Fresno.....	1
San Francisco.....	1
Diphtheria.....	74
Influenza.....	12
Jaundice (epidemic).....	1
Lethargic encephalitis:	
Colton.....	1
Sacramento.....	1
Measles.....	47
Poliomyelitis:	
Berkeley.....	2
Burbank.....	1
Inyo County.....	1
Los Angeles.....	2
Los Angeles County.....	2
Oakland.....	2
San Diego County.....	1
San Francisco.....	2
Stanislaus County.....	1
Scarlet fever.....	78
Smallpox:	
Los Angeles.....	33
Oakland.....	15
Scattering.....	26
Typhoid fever.....	14

INDIANA

Cerebrospinal meningitis:	
Jennings County.....	1
Union County.....	1
Chicken pox.....	37
Diphtheria.....	19

INDIANA—continued

	Cases
Influenza.....	20
Measles.....	114
Mumps.....	1
Pneumonia.....	2
Scarlet fever.....	46
Smallpox.....	68
Tuberculosis.....	44
Typhoid fever.....	6
Whooping cough.....	9

MINNESOTA

Chicken pox.....	111
Diphtheria.....	38
Influenza.....	1
Lethargic encephalitis.....	1
Measles.....	36
Pneumonia.....	4
Scarlet fever.....	121
Smallpox.....	4
Tuberculosis.....	59
Typhoid fever.....	1
Whooping cough.....	32

MISSISSIPPI

Diphtheria.....	2
Smallpox.....	22
Typhoid fever.....	31

MISSOURI

(Exclusive of Kansas City)	
Chicken pox.....	42
Diphtheria.....	40
Influenza.....	2
Malaria.....	3
Measles.....	19
Mumps.....	25
Ophthalmia neonatorum.....	2
Pneumonia.....	5
Scarlet fever.....	88
Smallpox.....	30
Tetanus.....	1
Trachoma.....	3
Tuberculosis.....	65
Typhoid fever.....	7
Whooping cough.....	45

NEBRASKA

Cerebrospinal meningitis.....	1
Chicken pox.....	7
Diphtheria.....	7
Measles.....	3

NEBRASKA—continued		WASHINGTON—continued	
	Cases		Cases
Mumps	5	Mumps	38
Scarlet fever	4	Scarlet fever	7
Smallpox	20	Smallpox	31
Tuberculosis	2	Tuberculosis	18
Typhoid fever	2	Typhoid fever	4
Whooping cough	11	Whooping cough	78
NORTH DAKOTA		WISCONSIN	
Chicken pox	5	Milwaukee:	
Diphtheria	12	Chicken pox	38
German measles	1	Diphtheria	11
Measles	1	German measles	21
Mumps	4	Influenza	2
Pneumonia	4	Lethargic encephalitis	1
Scarlet fever	29	Measles	142
Smallpox	2	Mumps	47
Tuberculosis	2	Pneumonia	10
Whooping cough	11	Scarlet fever	13
OKLAHOMA		Smallpox	12
(Exclusive of Oklahoma City and Tulsa)		Tuberculosis	14
Cerebrospinal meningitis—McIntosh County	1	Typhoid fever	1
Chicken pox	17	Whooping cough	42
Diphtheria	7	Scattering:	
Influenza	24	Chicken pox	104
Measles	5	Diphtheria	12
Mumps	12	German measles	106
Pellagra	11	Influenza	21
Pneumonia	10	Measles	265
Scarlet fever	18	Mumps	50
Smallpox	8	Pneumonia	16
Typhoid fever:		Scarlet fever	82
Stephens	8	Smallpox	21
Scattering	52	Tuberculosis	21
Whooping cough	104	Typhoid fever	2
WASHINGTON		Whooping cough	63
Cerebrospinal meningitis—Tacoma	1	WYOMING	
Chicken pox	50	Chicken pox	2
Diphtheria	10	German measles	1
German measles	7	Mumps	5
Measles	4	Scarlet fever	2
		Smallpox	1
		Whooping cough	10

SUMMARY OF MONTHLY REPORTS FROM STATES

The following summary of monthly State reports is published weekly and covers only those States from which reports are received during the current week:

State	Cerebrospinal meningitis	Diphtheria	Influenza	Malaria	Measles	Pellagra	Polio-myelitis	Scarlet fever	Smallpox	Typhoid fever
<i>April, 1925</i>										
California	9	560	349	5	555	6	29	620	827	54
<i>May, 1925</i>										
Illinois	13	370	243	12	6,237	2	4	1,682	150	71
Kansas	0	50	16		58	0	1	258	18	11
Louisiana	0	39	125	59	10	62	1	48	50	213
Maine	1	13	319		24		3	90	0	10
Massachusetts	12	351	108		3,756		1	996	1	37
North Carolina	5	83			116		1	80	253	41
Oregon	7	116	100		13			85	52	7
South Carolina	119	1,045	1,134		33	5	2	32	133	223
South Dakota	18	10			12			148	20	3

July 3, 1925

RECIPROCAL NOTIFICATIONS, MAY, 1925

Notifications regarding communicable diseases sent during the month of May, 1925, to other State health departments by departments of health of certain States

Referred by—	Diphtheria	Scarlet fever	Small-pox	Typhoid fever	Tuberculosis
Illinois.....		1	1	2	
Minnesota.....		3	3	3	32
New Jersey.....				1	
New Mexico.....					1
New York.....	1	1		1	

PLAQUE-ERADICATIVE MEASURES IN THE UNITED STATES

The following items were taken from the reports of plague-eradication measures from the cities named:

Oakland, Calif.

(Including other East Bay communities)

Week ended June 13, 1925:

Number of rats trapped.....	1,461
Number of rats found to be plague infected.....	0
Number of squirrels examined.....	715
Number of squirrels found to be plague infected.....	0

Totals:

Number of rats trapped Jan. 1 to June 13, 1925.....	52,811
Number of rats found to be plague infected.....	21
Number of squirrels examined May 1 to June 13, 1925.....	3,289
Number of squirrels found to be plague infected.....	0

Date of discovery of last plague-infected rat, Mar. 4, 1925.

Date of last human case, Sept. 10, 1919.

New Orleans, La.

Week ended June 13, 1925:

Number of vessels inspected.....	256
Number of inspections made.....	694
Number of vessels fumigated with cyanide gas.....	23
Number of rodents examined for plague.....	5,819
Number of rodents found to be plague infected.....	0

Totals, Dec. 5, 1924, to June 13, 1925:

Number of rodents examined for plague.....	124,428
Number of rodents found to be plague infected.....	12

Date of discovery of last plague-infected rat, Jan. 17, 1925.

Date of last human case occurring in New Orleans, Aug. 20, 1920.

GENERAL CURRENT SUMMARY AND WEEKLY REPORTS FROM CITIES

Diphtheria.—For the week ended June 13, 1925, 35 States reported 1,030 cases of diphtheria. For the week ended June 14, 1924, the same States reported 1,336 cases of this disease. One hundred and one cities, situated in all parts of the country and having an aggregate population of nearly 27,600,000, reported 657 cases of diphtheria

for the week ended June 13, 1925. Last year, for the corresponding week, they reported 905 cases of diphtheria. The estimated expectancy for these cities was 847 cases. The estimated expectancy is based on the experience of the last nine years, excluding epidemics.

Measles.—Thirty-two States reported 5,591 cases of measles for the week ended June 13, 1925, and 6,935 cases of this disease for the week ended June 14, 1924. One hundred and one cities reported 3,202 cases of measles for the week this year, and 2,805 cases last year.

Scarlet fever.—Scarlet fever was reported for the week as follows: Thirty-five States—this year, 1,815 cases; last year, 2,219 cases; 101 cities—this year, 964 cases; last year, 1,055; estimated expectancy, 724 cases.

Smallpox.—For the week ended June 13, 1925, 35 States reported 658 cases of smallpox. Last year for the corresponding week they reported 863 cases. One hundred and one cities reported smallpox for the week as follows: 1925, 202 cases; 1924, 309 cases; estimated expectancy, 101 cases. These cities reported 14 deaths from smallpox for the week this year.

Typhoid fever.—Five hundred cases of typhoid fever were reported for the week ended June 13, 1925, by 34 States. For the corresponding week of 1924 the same States reported 342 cases. One hundred and one cities reported 155 cases of typhoid fever for the week this year, and 107 cases for the corresponding week last year. The estimated expectancy for these cities was 92 cases.

Influenza and pneumonia.—Deaths from influenza and pneumonia (combined) were reported for the week by 101 cities as follows: 1925, 591 deaths; 1924, 578 deaths.

City reports for week ended June 13, 1925

The "estimated expectancy" given for diphtheria, poliomyelitis, scarlet fever, smallpox, and typhoid fever is the result of an attempt to ascertain from previous occurrence how many cases of the disease under consideration may be expected to occur during a certain week in the absence of epidemics. It is based on reports to the Public Health Service during the past nine years. It is in most instances the median number of cases reported in the corresponding week of the preceding years. When the reports include several epidemics or when for other reasons the median is unsatisfactory, the epidemic periods are excluded and the estimated expectancy is the mean number of cases reported for the week during nonepidemic years.

If reports have not been received for the full nine years, data are used for as many years as possible, but no year earlier than 1915 is included. In obtaining the estimated expectancy, the figures are smoothed when necessary to avoid abrupt deviations from the usual trend. For some of the diseases given in the table the available data were not sufficient to make it practicable to compute the estimated expectancy.

City reports for week ended June 13, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick-en pox, cases reported	Diphtheria		Influenza		Measles, cases reported	Mumps, cases reported	Pneumonia, deaths reported
			Cases, estimated expectancy	Cases reported	Cases reported	Deaths reported			
NEW ENGLAND									
Maine:									
Portland	73,129	4	2	2	0	0	1	8	0
New Hampshire:									
Concord	22,408	0	0	0	0	0	4	0	0
Manchester	81,383	0	1	0	0	0	5	0	2
Vermont:									
Barre	10,008	2	0	0	0	0	0	3	0
Burlington	23,613	2	1	1	0	0	1	5	0
Massachusetts:									
Boston	770,400	51	18	2	1	188			26
Fall River	120,912	1	3	1	0	3	1	2	
Springfield	144,227	2	2	3	0	0	4	2	1
Worcester	191,927	11	4	1	1	0	62	0	2
Rhode Island:									
Pawtucket	68,799	0	1	0	0	0	0	0	0
Providence	242,378	0	9	0	1	4	0	0	6
Connecticut:									
Bridgeport	143,555	3	5	7	0	0	4	1	2
Hartford	138,036	0	5	5	0	0	13	2	3
New Haven	172,967	5	3	1	0	0	76	0	5
MIDDLE ATLANTIC									
New York:									
Buffalo	536,718	15	12	6	0	1	185	3	13
New York	5,927,625	406	244	194	7	8	298	37	151
Rochester	317,867	1	6	4	0	0	130	6	6
Syracuse	184,511	22	6	0	0	0	32	10	1
New Jersey:									
Camden	124,157	2	4	6	0	0	39	1	3
Newark	438,699	59	13	9	0	0	77	5	5
Trenton	127,390	3	4	3	0	1	0	0	1
Pennsylvania:									
Philadelphia	1,922,788	105	57	71	0	0	344	25	49
Pittsburgh	613,442	26	19	12	0	2	272	5	27
Reading	110,917	6	2	3	0	0	59	2	1
Scranton	140,636	0	3	1	0	0	5	0	3
EAST NORTH CENTRAL									
Ohio:									
Cincinnati	406,312	7	20	28	2	0	41	6	11
Cleveland	888,519	153	2	2	0	0	5	0	6
Columbus	261,082	1	4	6	0	0	114	0	2
Toledo	268,338	33	1	1	0	0	0	0	
Indiana:									
Fort Wayne	93,573	4	2	0	0	0	8	0	2
Indianapolis	342,718	55	5	1	0	0	48	2	
South Bend	76,709	3	1	1	0	0	1	0	
Terre Haute	68,939	9	1	2	0	0	29	0	
Illinois:									
Chicago	2,886,121	114	92	53	4	2	616	24	44
Cicero	55,968	1	1	2	0	0	41	13	1
Springfield	61,833	5	1	1	0	0	0	0	
Michigan:									
Detroit	995,668	97	44	18	7	4	26	12	27
Flint	117,968	12	3	1	0	0	38	3	1
Grand Rapids	145,947	3	2	1	0	0	118	0	7
Wisconsin:									
Madison	42,519	5	1	0	0	0	0	4	0
Milwaukee	484,595	42	11	11	0	0	145	52	8
Racine	64,393	8	1	1	0	0	0	13	1
Superior	130,671	0	1	0	0	0	0	0	1
WEST NORTH CENTRAL									
Minnesota:									
Duluth	106,289	7	1	0	0	0	3	0	2
Minneapolis	409,125	76	12	8	0	1	21	2	5
St. Paul	241,891	33	14	15	0	1	12	16	10

¹ Population Jan. 1, 1920.

City reports for week ended June 13, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick-en pox, cases reported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, es-ti-mated ex-pectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
IOWA:									
Davenport	61,262	0	1	2	0	—	2	0	—
Des Moines	140,923	0	1	4	0	—	1	0	—
Sioux City	79,662	9	1	0	0	—	0	1	—
Waterloo	39,667	6	0	0	0	—	4	0	—
MISSOURI:									
Kansas City	351,819	19	6	5	1	1	3	10	3
St. Joseph	78,232	0	1	0	0	0	0	0	4
St. Louis	803,853	26	36	38	1	1	19	3	—
NORTH DAKOTA:									
Fargo	24,841	3	1	0	0	0	0	2	0
Grand Forks	14,547	3	0	0	—	—	0	0	—
SOUTH DAKOTA:									
Aberdeen	15,829	0	0	0	0	—	0	0	—
Sioux Falls	29,206	6	0	0	0	0	0	0	0
NEBRASKA:									
Lincoln	58,761	5	1	0	0	0	1	1	0
Omaha	204,352	7	3	2	0	0	2	0	1
KANSAS:									
Topeka	52,555	3	1	1	1	0	0	16	1
Wichita	79,261	11	1	1	0	0	1	0	1
SOUTH ATLANTIC									
Delaware:									
Wilmington	117,728	4	1	3	0	0	17	0	2
MARYLAND:									
Baltimore	773,580	114	14	12	2	2	38	53	23
Cumberland	32,361	2	0	0	0	0	1	1	1
Frederick	11,301	1	0	0	0	0	0	0	0
DISTRICT OF COLUMBIA:									
Washington	1,437,571	4	7	6	0	0	28	—	8
Virginia:									
Lynchburg	30,277	6	0	0	0	0	0	5	1
Norfolk	159,089	8	0	1	0	0	2	2	2
Richmond	181,044	5	1	1	0	0	16	0	2
Roanoke	55,502	1	1	1	0	0	13	1	0
WEST VIRGINIA:									
Charleston	45,597	2	0	0	0	0	23	1	1
Huntington	57,918	0	0	0	0	—	0	0	—
Wheeling	1,56,208	1	1	0	—	0	5	0	1
NORTH CAROLINA:									
Raleigh	29,171	5	0	0	0	0	0	0	1
Wilmington	35,719	0	1	0	0	0	0	3	1
Winston-Salem	56,230	8	1	0	0	0	2	3	2
SOUTH CAROLINA:									
Charleston	71,245	0	0	0	0	0	1	0	1
Columbia	39,688	4	0	0	0	0	0	0	0
Greenville	25,789	0	0	0	0	0	0	0	0
GEORGIA:									
Atlanta	222,963	3	1	4	7	0	0	3	12
Brunswick	15,937	0	0	0	0	0	0	0	0
Savannah	89,448	1	1	0	1	0	0	0	1
FLORIDA:									
St. Petersburg	24,403	0	—	0	0	0	0	0	—
Tampa	56,050	0	1	0	0	0	0	0	1
EAST SOUTH CENTRAL									
Kentucky:									
Covington	57,877	—	0	—	—	—	3	3	3
Louisville	257,671	3	3	0	0	2	2	3	3
Tennessee:									
Memphis	170,067	2	1	0	—	0	12	0	4
Nashville	121,128	3	0	0	—	0	22	0	2
Alabama:									
Birmingham	195,901	11	1	0	3	1	1	2	2
Mobile	63,838	0	1	1	0	0	0	1	0
Montgomery	45,383	1	0	0	0	0	0	1	0

1 Population Jan. 1, 1920.

City reports for week ended June 13, 1925—Continued

Division, State, and city	Population July 1, 1923, estimated	Chick-en pox, cases reported	Diphtheria		Influenza		Meas-les, cases re-ported	Mumps, cases re-ported	Pneu-monia, deaths re-ported
			Cases, esti-mated expectancy	Cases re-ported	Cases re-ported	Deaths re-ported			
WEST SOUTH CENTRAL									
Arkansas:									
Fort Smith	30,635	0	1	2	0	0	0	1	3
Little Rock	70,916	1	0	0	0	0	0	0	0
Louisiana:									
New Orleans	404,575	1	6	10	2	3	1	0	6
Shreveport	54,590	0		0	0	1	1	0	0
Oklahoma:									
Oklahoma	101,150	0	1	0	0	2	0	0	4
Texas:									
Dallas	177,274	9	2	1	0	0	0		2
Galveston	46,877	0	1	0	0	0	1	2	0
Houston	154,970	1	2	0	0	0	0	0	3
San Antonio	184,727		1	2		0	0		3
MOUNTAIN									
Montana:									
Billings	16,927	0	0	0	0	0	0	6	0
Great Falls	27,757	0	1	1	0	0	0	1	0
Helena	112,037		0	0	0	0	0		0
Missoula	112,668	0	0	1	0	0	0	0	0
Idaho:									
Boise	22,806	2	1	0	0	0	0	0	0
Colorado:									
Denver	272,031	9	10	10		1	7	19	7
Pueblo	43,519	0	2	3		0	1	0	2
New Mexico:									
Albuquerque	16,648	0	1	0	0	0	1	3	6
Arizona:									
Phoenix	33,899	0	0	1		0	0	0	0
Utah:									
Salt Lake City	126,241	11	2	4	0	0	2	34	2
Nevada:									
Reno	12,429	0	0	0	0	0	0	0	0
PACIFIC									
Washington:									
Seattle	315,685	27	4	3	0		0	42	
Spokane	104,573	5	2	6	0		0	0	
Tacoma	101,731	4	1	1		0	0	2	1
Oregon:									
Portland	273,621	7	4	14	1	1	0	12	2
California:									
Los Angeles	666,853	41	35	28	4	0	27	29	7
Sacramento	69,950	20	1	3	0	0	0	1	0
San Francisco	539,038	20	23	16	4	1	3	46	4

* Population Jan. 1, 1920.

City reports for week ended June 13, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber-cu-losis, deaths re-ported	Typhoid fever			Whoop-ing cough, cases re-ported	Deaths, all causes
	Cases, es-ti-mated ex-pectancy	Cases re-ported	Cases es-ti-mated ex-pectancy	Cases re-ported	Deaths re-ported		Cases, es-ti-mated ex-pectancy	Cases re-ported	Deaths re-ported		
NEW ENGLAND											
Maine:											
Portland	1	2	0	0	0	1	1	0	0	1	15
New Hampshire:											
Concord	0	0	0	0	0	1	0	0	0	0	4
Manchester	0	3	0	0	0	1	0	0	0	0	22
Vermont:											
Burlington	0	0	0	0	0	0	0	0	0	0	5
Massachusetts:											
Boston	37	42	0	0	0	18	2	6	0		242
Fall River	2	2	0	0	0	4	2	0	0	4	47
Springfield	4	5	0	0	0	2	0	1	0	6	48
Worcester	5	3	0	0	0	6	0	0	0	3	42
Rhode Island:											
Pawtucket	1	0	0	0	0	0	0	0	0	1	21
Providence	8	3	0	0	0	3	0	0	0	1	81
Connecticut:											
Bridgeport	4	8	0	0	0	3	0	0	0	0	23
Hartford	3	1	0	0	0	2	0	0	0	7	40
New Haven	2	4	0	0	0	2	1	3	0	31	43
MIDDLE ATLANTIC											
New York:											
Buffalo	17	15	0	0	0	16	1	2	0	14	169
New York	149	120	0	1	0	100	12	21	3	118	2,054
Rochester	9	26	0	0	0	5	0	1	0	18	82
Syracuse	8	2	0	0	0	1	0	0	0	6	35
New Jersey:											
Camden	2	4	0	0	1	4	1	0	0	7	45
Newark	15	13	0	0	0	5	1	1	0	45	99
Trenton	1	2	0	0	0	4	1	0	0	2	69
Pennsylvania:											
Philadelphia	59	64	1	3	0	52	5	7	0	91	907
Pittsburgh	19	58	0	0	0	11	2	1	0	22	181
Reading	1	4	0	0	0	2	0	0	0	10	40
Scranton	2	1	0	0	0	1	0	0	0	4	
EAST NORTH CENTRAL											
Ohio:											
Cincinnati	7	2	1	1	1	17	1	1	1	66	165
Cleveland	16	15	1	16	0	7	0	0	0	6	72
Columbus	4	7	1	12	0	4	1	0	0	31	
Toledo	14	10	1	0	0	10	1	0	1	20	54
Indiana:											
Fort Wayne	1	4	2	1	0	2	0	0	1	1	23
Indianapolis	10	1	5	12	0	4	1	0	0	31	78
South Bend	2	4	1	0	0	1	0	0	0	0	13
Terre Haute	1	5	0	11	0	2	0	0	0	0	35
Illinois:											
Chicago	60	134	2	4	0	59	3	7	0	96	670
Cicero	0	0	0	0	0	0	0	0	0	0	18
Springfield	1	4	1	0	0	0	0	0	0	0	
Michigan:											
Detroit	55	49	11	1	0	16	3	2	1	137	247
Flint	4	8	1	1	0	0	0	0	0	0	16
Grand Rapids	4	22	0	0	0	1	1	1	0	6	37
Wisconsin:											
Madison	1	2	1	0	0	0	0	1	0	6	3
Milwaukee	21	6	3	6	8	9	0	0	0	33	104
Racine	3	1	1	1	0	0	0	0	0	1	10
Superior	1	12	2	1	1	0	1	0	0	0	6
WEST NORTH CENTRAL											
Minnesota:											
Duluth	3	5	3	0	0	0	1	0	0	0	22
Minneapolis	22	46	9	3	1	6	1	1	0	7	84
St. Paul	15	25	4	2	2	10	0	0	0	15	76

¹ Pulmonary tuberculosis only.

City reports for week ended June 13, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber-cu-losis, deaths re-ported	Typhoid fever			Whoop-ing cough, cases re-ported	Deaths, all causes
	Cases, es-ti-mated ex-pectancy	Cases re-ported	Cases, es-ti-mated ex-pectancy	Cases re-ported	Deaths re-ported		Cases, es-ti-mated ex-pectancy	Cases re-ported	Deaths re-ported		
WEST NORTH CENTRAL—con											
Iowa:											
Davenport	1	0	4	4			0	0		0	
Des Moines	4	1	3	0			0	0		0	
Sioux City	2	2	1	2			0	0		0	
Waterloo	3	0	0	2			0	0		9	
Missouri:											
Kansas City	5	9	3	0	0	2	1	6	0	26	67
St. Joseph	1	0	0	0	0	1	0	0	0	4	29
St. Louis	21	64	2	3	0	12	2	4	1	19	192
North Dakota:											
Fargo	1	2	0	0	0	1	0	0	0	9	6
Grand Forks	1	0	0	0			0	0		0	
South Dakota:											
Aberdeen	2	0	0	0			0	0		0	
Sioux Falls	1	0	0	0			0	0		0	4
Nebraska:											
Lincoln	1	0	0	0	0	1	1	1	0	8	12
Omaha	4	3	2	15	0	7	0	0	0	1	57
Kansas:											
Topeka	1	0	1	0	0	1	0	0	0	2	12
Wichita	1	1	3	0	0	0	0	1	0	22	34
SOUTH ATLANTIC											
Delaware:											
Wilmington	3	1	0	0	0	2	1	0	0	0	39
Maryland:											
Baltimore	19	12	1	0	0	20	3	2	0	85	338
Cumberland	1	0	0	0	0	2	0	0	0	1	13
Frederick	1	0	0	0	0	0	0	0	0	0	6
District of Col.:											
Washington	11	5	1	0	0	12	2	2	0	14	141
Virginia:											
Lynchburg	0	1	1	0	0	0	0	0	0	8	12
Norfolk	1	0	0	0	0	1	1	0	0	11	
Richmond	2	2	0	0	0	3	1	3	0	1	43
Roanoke	0	0	1	0	0	1	0	1	0	3	11
West Virginia:											
Charleston	1	0	0	0	0	1	1	0	1	0	13
Huntington	1	0	0	0			0	0		0	
Wheeling	1	4	0	0	0	0	1	0	0	0	12
North Carolina:											
Raleigh	0	0	0	0	0	0	0	3	0	1	18
Wilmington	1	0	0	1	0	1	1	0	0	0	10
Winston-Salem	1	1	1	5	0	0	1	1	0	29	11
South Carolina:											
Charleston	0	0	0	0	0	3	1	2	2	0	24
Columbia	1	0	1	0	0	0	2	4	0	2	
Greenville	0	0	0	4	0	0	1	3	0	7	16
Georgia:											
Atlanta	4	3	7	1	0	6	1	4	3	20	77
Brunswick	0	0	0	0	0	0	1	1	0	0	2
Savannah	0	0	0	0	0	0	2	2	0	0	24
Florida:											
St. Petersburg	0	0	0			0					
Tampa	0	1	0	0	0	2	1	4	0	0	23
EAST SOUTH CENTRAL											
Kentucky:											
Covington	1	0					1				
Louisville	2	12	1	1	0	3	1	1	-0	6	70
Tennessee:											
Memphis	3	1	1	1	0	10	1	9	0	15	66
Nashville	1	3	1	8	0	5	2	6	1	7	42
Alabama:											
Birmingham	1	12	1	41	0	8	3	2	0	16	93
Mobile	0	0	1	0	0	0	1	0	0	0	18
Montgomery	0	0	1	1	0	0	1	3	1	0	19

¹Pulmonary tuberculosis only.

City reports for week ended June 13, 1925—Continued

Division, State, and city	Scarlet fever		Smallpox			Tuber-cu-losis, deaths re-ported	Typhoid fever			Whoop-ing cough, cases re-ported	Deaths, all causes
	Cases, es-ti-mated ex-pectancy	Cases re-ported	Cases, es-ti-mated ex-pectancy	Cases re-ported	Deaths re-ported		Cases, es-ti-mated ex-pectancy	Cases re-ported	Deaths re-ported		
WEST SOUTH CENTRAL											
Arkansas:											
Fort Smith	1	0	0	0	0	0	0	0	11	11	
Little Rock	1	1	1	0	0	2	1	4	0	1	
Louisiana:											
New Orleans	2	7	3	0	0	19	3	8	3	11	137
Shreveport		0		0	0	0	4	0	0	0	25
Oklahoma:											
Oklahoma	1	0	5	0	0	3	0	5	1	1	34
Texas:											
Dallas	1	2	2	0	0	5	1	4	2	24	54
Galveston	0	0	0	1	0	2	0	0	0	0	12
Houston	1	0	1	0	0	1	1	0	1	0	37
San Antonio	1	0	0	0	0	11	1	5	2		64
MOUNTAIN											
Montana:											
Billings	1	2	1	0	0	1	0	0	0	0	3
Great Falls	1	11	1	2	0	1	0	0	0	4	8
Helena	0	4	0	0	0	0	1	0	0	0	6
Missoula	1	0	0	0	0	0	0	0	0	0	3
Idaho:											
Boise	1	0	1	1	0	0	0	0	0	1	3
Colorado:											
Denver	8	3	0	0	0	11	1	0	0	13	73
Pueblo	1	2	0	0	0	3	0	0	0	0	14
New Mexico:											
Albuquerque	0	0	0	0	0	2	0	0	0	0	8
Arizona:											
Phoenix		0		0	0	4	0	0	0	0	25
Utah:											
Salt Lake City	2	7	1	0	0	1	0	5	1	5	33
Nevada:											
Reno	0	0	1	0	0	0	1	0	0	0	7
PACIFIC											
Washington:											
Seattle	7	14	3	8			1	1		81	
Spokane	3	1	3	0			0	0		14	
Tacoma	2	4	2	3	0	0	1	0	0	2	24
Oregon:											
Portland	6	10	3	6	0	1	1	1	0	12	0
California:											
Los Angeles	11	24	1	36	0	25	3	2	0	81	220
Sacramento	1	1	0	2	0	1	1	0	0	7	26
San Francisco	12	12	0	2	0	10	1	1	0	41	150

City reports for week ended June 13, 1925—Continued

Division, State, and city	Cerebrospinal meningitis		Lethargic encephalitis		Pellagra		Poliomyelitis (infantile paralysis)		Typhus fever	
	Cases	Deaths	Cases	Deaths	Cases	Deaths	Cases, estimated expectancy	Cases	Deaths	Cases	Deaths
NEW ENGLAND										
Massachusetts:										
Boston.....	0	0	0	0	0	0	0	0	2	-----
Worcester.....	1	0	0	0	0	0	0	0	0	-----
Rhode Island:										
Pawtucket.....	1	0	0	0	0	0	0	0	0	-----
Providence.....	0	1	0	0	0	0	0	0	0	-----
Connecticut:										
Bridgeport.....	0	0	1	0	0	0	0	0	0	0
MIDDLE ATLANTIC										
New York:										
New York.....	3	5	3	3	0	0	1	3	1	-----
New Jersey:										
Newark.....	0	1	1	0	0	0	0	0	0	-----
Trenton.....	0	0	0	1	0	0	0	0	0	-----
Pennsylvania:										
Philadelphia.....	1	0	0	0	0	0	0	0	0	-----
Pittsburgh.....	0	0	0	0	0	0	1	1	0	-----
EAST NORTH CENTRAL										
Ohio:										
Columbus.....	0	1	0	0	0	0	0	0	0	-----
Illinois:										
Chicago.....	1	0	0	0	0	0	0	0	0	-----
Michigan:										
Detroit.....	1	0	0	0	0	1	0	0	0	-----
SOUTH ATLANTIC										
Maryland:										
Baltimore.....	0	1	0	0	0	0	0	2	1	-----
District of Columbia:										
Washington.....	1	1	1	1	0	0	0	0	0	-----
EAST SOUTH CENTRAL										
Tennessee:										
Memphis.....	0	0	0	0	1	1	0	0	0	-----
Nashville.....	0	0	0	0	1	0	0	0	0	-----
Alabama:										
Birmingham.....	1	1	0	0	1	1	0	2	1	-----
Mobile.....	0	0	0	0	0	1	0	0	0	-----
Montgomery.....	0	0	0	0	0	1	0	0	0	-----
WEST SOUTH CENTRAL										
Arkansas:										
Little Rock.....	0	0	1	1	0	0	0	0	0	-----
Louisiana:										
New Orleans.....	0	0	2	1	1	0	0	0	0	-----
Shreveport.....	0	0	0	0	0	1	0	0	0	-----
Texas:										
Dallas.....	0	0	0	0	2	1	0	0	0	-----
Houston.....	0	0	0	0	0	2	0	0	0	-----
San Antonio.....	0	0	0	0	1	1	0	1	0	-----
MOUNTAIN										
Arizona:										
Phoenix.....	0	0	0	0	0	0	-----	1	1	-----
PACIFIC										
Oregon:										
Portland.....	3	2	0	0	0	0	0	0	0	-----
California:										
Los Angeles.....	0	0	0	0	0	0	0	3	0	-----
Sacramento.....	0	0	0	0	0	0	0	0	1	-----
San Francisco.....	0	0	1	0	0	0	0	3	0	-----

The following table gives the rates per hundred thousand population for 105 cities for the 10-week period ended June 13, 1925. The population figures used in computing the rates were estimated as of July 1, 1923, as this is the latest date for which estimates are available. The 105 cities reporting cases had an estimated aggregate population of nearly 29,000,000, and the 97 cities reporting deaths had more than 28,000,000 population. The number of cities included in each group and the aggregate populations are shown in a separate table below.

Summary of weekly reports from cities, April 5 to June 13, 1925—Annual rates per 100,000 population¹

DIPHTHERIA CASE RATES

	Week ended—									
	Apr. 11	Apr. 18	Apr. 25	May 2	May 9	May 16	May 23	May 30	June 6	June 13
105 cities.....	158	160	162	158	² 157	³ 164	153	⁴ 149	⁵ 157	⁶ 121
New England.....	166	129	144	127	100	154	127	114	129	94
Middle Atlantic.....	220	228	218	213	212	238	203	211	244	156
East North Central.....	96	110	113	110	113	110	108	106	99	⁷ 96
West North Central.....	226	108	187	201	278	211	251	197	189	145
South Atlantic.....	73	102	108	104	104	85	87	⁴ 77	⁵ 93	⁸ 57
East South Central.....	34	46	40	40	11	34	40	11	11	⁹ 6
West South Central.....	107	74	79	70	65	56	42	65	42	70
Mountain.....	105	239	267	115	105	153	134	143	76	181
Pacific.....	171	168	165	206	² 123	³ 138	163	168	145	165

MEASLES CASE RATES

105 cities.....	531	589	645	581	² 627	³ 624	601	⁴ 593	⁵ 618	⁶ 580
New England.....	1,011	917	1,217	1,004	984	1,188	1,051	867	872	892
Middle Atlantic.....	680	815	782	734	797	768	617	704	774	727
East North Central.....	710	742	901	761	890	854	954	913	893	⁷ 886
West North Central.....	58	91	102	79	112	79	236	145	114	135
South Atlantic.....	207	256	265	305	240	329	327	⁴ 256	⁵ 416	⁸ 299
East South Central.....	34	97	189	200	343	166	337	217	132	⁹ 226
West South Central.....	51	65	37	28	32	14	23	14	23	14
Mountain.....	57	267	210	534	181	57	181	248	38	95
Pacific.....	241	154	203	162	² 95	³ 178	131	165	165	87

SCARLET FEVER CASE RATES

105 cities.....	367	342	360	309	² 323	³ 352	307	⁴ 278	⁵ 266	⁶ 177
New England.....	529	350	407	430	415	358	350	211	266	179
Middle Atlantic.....	359	343	236	323	319	331	265	271	263	156
East North Central.....	422	403	433	324	366	399	413	346	317	⁷ 217
West North Central.....	647	651	692	518	618	728	556	531	481	325
South Atlantic.....	152	167	175	132	106	165	146	⁴ 122	⁵ 132	⁸ 62
East South Central.....	250	229	257	263	263	326	246	183	126	⁹ 171
West South Central.....	88	60	121	111	88	74	23	65	88	46
Mountain.....	258	315	401	334	277	353	324	410	334	277
Pacific.....	174	145	148	125	² 151	³ 197	162	139	151	162

¹ The figures given in this table are rates per 100,000 population, annual basis, and not the number of cases reported. Populations used are estimated as of July 1, 1923.

² Spokane, Wash., not included. Report not received at time of going to press.

³ Tacoma, Wash., not included.

⁴ Charleston, W. Va., not included.

⁵ Wilmington, N. C., not included.

⁶ Cincinnati, Ohio, Cleo, Ill., St. Petersburg, Fla., and Covington, Ky., not included.

⁷ Cincinnati, Ohio, and Cleo, Ill., not included.

⁸ St. Petersburg, Fla., not included.

⁹ Covington, Ky., not included.

Summary of weekly reports from cities, April 5 to June 13, 1925—Annual rates per 100,000 population—Continued

SMALLPOX CASE RATES

	Week ended—									
	Apr. 11	Apr. 18	Apr. 25	May 2	May 9	May 16	May 23	May 3	June 6	June 13
105 cities.....	51	48	62	50	46	46	60	48	46	37
New England.....	2	0	2	0	2	0	0	0	0	0
Middle Atlantic.....	10	18	12	8	6	7	2	2	4	2
East North Central.....	22	27	39	30	44	56	70	58	65	44
West North Central.....	97	85	89	75	60	79	68	70	95	52
South Atlantic.....	43	53	79	63	45	37	65	10	39	23
East South Central.....	572	395	457	435	377	189	440	423	114	317
West South Central.....	51	14	42	32	28	37	130	56	32	5
Mountain.....	19	10	29	10	48	29	29	57	38	29
Pacific.....	148	162	264	206	176	191	186	168	191	148

TYPHOID FEVER CASE RATES

105 cities.....	10	12	16	18	14	13	19	16	25	29
New England.....	2	7	17	10	5	12	25	17	30	25
Middle Atlantic.....	9	11	14	22	13	10	19	9	26	17
East North Central.....	6	4	7	4	9	6	5	7	10	10
West North Central.....	2	2	6	12	2	0	4	10	8	25
South Atlantic.....	20	12	14	28	28	26	39	41	41	66
East South Central.....	17	34	80	46	46	63	74	51	40	128
West South Central.....	37	56	51	51	46	79	65	74	88	116
Mountain.....	19	38	29	0	0	0	19	10	76	48
Pacific.....	9	12	23	17	9	3	6	9	9	15

INFLUENZA DEATH RATES

105 cities.....	27	27	30	22	15	14	14	12	11	7
New England.....	32	27	30	20	10	7	5	7	2	5
Middle Atlantic.....	16	24	17	14	10	12	11	9	11	6
East North Central.....	27	24	33	23	16	11	12	14	10	5
West North Central.....	37	50	48	31	11	11	18	18	4	9
South Atlantic.....	26	12	43	26	24	10	6	12	6	4
East South Central.....	74	80	86	51	51	80	86	40	54	18
West South Central.....	46	36	25	31	15	20	24	31	5	20
Mountain.....	86	38	76	48	19	57	19	0	29	10
Pacific.....	12	29	12	12	16	12	25	8	12	4

PNEUMONIA DEATH RATES

105 cities.....	201	192	203	167	151	127	128	117	128	105
New England.....	211	206	186	149	161	134	119	114	72	117
Middle Atlantic.....	190	204	223	206	185	143	144	146	168	130
East North Central.....	190	190	211	148	130	125	125	119	114	90
West North Central.....	228	171	136	72	58	79	59	57	57	59
South Atlantic.....	238	232	191	195	156	136	134	157	146	123
East South Central.....	343	206	286	194	160	166	137	172	126	67
West South Central.....	168	173	158	127	138	112	84	76	66	87
Mountain.....	267	210	219	124	124	162	172	76	95	105
Pacific.....	119	98	147	127	123	78	135	82	131	49

¹ Spokane, Wash., not included. Report not received at time of going to press.

² Tacoma, Wash., not included.

⁴ Charleston, W. Va., not included.

⁵ Wilmington, N. C., not included.

⁶ Cincinnati, Ohio, Cicero, Ill., St. Petersburg, Fla., and Covington, Ky., not included.

⁷ Cincinnati, Ohio, and Cicero, Ill., not included.

⁸ St. Petersburg, Fla., not included.

⁹ Covington, Ky., not included.

Number of cities included in summary of weekly reports and aggregate population of cities in each group, estimated as of July 1, 1923

Group of cities	Number of cities reporting cases	Number of cities reporting deaths	Aggregate population of cities reporting cases	Aggregate population of cities reporting deaths
Total.....	105	97	28,898,350	28,140,934
New England.....	12	12	2,098,746	2,098,746
Middle Atlantic.....	10	10	10,304,114	10,304,114
East North Central.....	17	17	7,032,535	7,032,535
West North Central.....	14	11	2,515,330	2,381,454
South Atlantic.....	22	22	2,566,901	2,566,901
East South Central.....	7	7	911,885	911,885
West South Central.....	8	6	1,124,564	1,023,013
Mountain.....	9	9	546,445	546,445
Pacific.....	6	3	1,797,830	1,275,841

FOREIGN AND INSULAR

THE FAR EAST

Wireless health news messages.—The following data for the week ended June 6, 1925, were sent by wireless from the Far Eastern Bureau of the Health Section of the League of Nations located at Singapore to the headquarters at Geneva, Switzerland:

Port	Plague		Cholera		Smallpox	
	Cases	Deaths	Cases	Deaths	Cases	Deaths
Calcutta		1		23	50	45
Bombay		2	0	0	12	10
Madras	0	0	0	0	20	10
Rangoon		13		2	14	6
Karachi	0	0	0	0	1	-----
Negapatam	0	0	0	0	0	0
Singapore	0	0	0	0	0	0
Port Swettenham	0	0	0	0	0	0
Penang	0	0	0	0	0	0
Batavia	0	0	0	0	0	0
Soerabaya	0	0	0	0	0	0
Samarang	0	0	0	0	0	0
Belawan Deli	0	0	0	0	0	0
Macassar	0	0	0	0	0	0
Sandakan (North Borneo)	0	0	0	0	0	0
Sarawak	0	0	0	0	0	0
Bangkok ¹	3	3	1	-----	6	3
Saigon and Cholon	1	-----	1	-----	0	0
Hongkong	0	0	0	0	1	-----
Shanghai	0	0	0	0	2	-----
Manila	0	0	0	0	0	0
Colombo	0	0	0	0	0	0
Nagasaki	0	0	0	0	0	0
Yokohama	0	0	0	0	0	0
Shimonoseki	0	0	0	0	0	0
Kebe	0	0	0	0	0	0

¹ Plague-infected rats found.

BRAZIL

Plague—Bahia—May 3-16, 1925.—During the two weeks ended May 16, 1925, four cases of plague with three deaths were reported at Bahia, Brazil.

CUBA

Communicable diseases—Provinces—March and April, 1925.—Cases of disease were notified in the provinces of Cuba for the months of March and April, 1925, as follows:

MARCH, 1925

Disease	Pinar del Rio	Habana	Matan- zas	Santa Clara	Cama- guay	Oriente	Total
Cerebrospinal meningitis					2	5	7
Chicken pox		23		13	38	9	83
Diphtheria	4	16		2	1	5	28
Malaria	1	37	2	1	47	569	657
Measles	1	140	1	40	7	2	191
Paratyphoid fever		5		1			6
Poliomyelitis	4						4
Scarlet fever	1	15		32			48
Tetanus (infantile)				1			1
Typhoid fever	9	43	7	21	12	29	121

APRIL, 1925

Cerebrospinal meningitis		2		1			3
Chicken pox	2	24		15	2	3	46
Diphtheria	1	25	2	1	2	3	34
Malaria	2	50		2	16	306	376
Measles	4	227	11	27	4	8	281
Paratyphoid fever		3	3	1			7
Scarlet fever		7		1			8
Typhoid fever	9	47	21	22	10	21	130

MADAGASCAR

Plague—Tananarive Province—April 1-15, 1925.—During the period April 1 to 15, 1925, 79 cases of plague with 60 deaths were reported in the Province of Tananarive, Madagascar. Of these, 50 cases with 35 deaths were bubonic, 17 cases with 13 deaths pneumonic, and 12 cases with 12 deaths septicemic in type.

MALTA

Communicable diseases—May 1-15, 1925.—During the period May 1 to 15, 1925, communicable diseases were reported in the island of Malta as follows: Chicken pox, cases 11; diphtheria, 2; malaria, 1 case; Malta (undulant) fever, 26 cases, typhoid fever 2, and tuberculosis 17 cases.

VIRGIN ISLANDS

Communicable diseases—May, 1925.—During the month of May, 1925, communicable diseases were reported in the Virgin Islands of the United States as follows:

Island and disease	Cases	Remarks
St. Thomas and St. John:		
Chicken pox	1	
Dengue	22	
Gonorrhea	1	
Pellagra	3	
Syphilis	5	Secondary. One imported.
Tuberculosis	1	Acute miliary.
St. Croix:		
Chancroid	2	
Filariasis	2	Bancrofti.
Gonorrhea	3	
Malaria	1	Estivo-autumnal.
Syphilis	7	Secondary.

CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER

The reports contained in the following tables must not be considered as complete or final as regards either the lists of countries included or the figures for the particular countries for which reports are given.

Reports Received During Week Ended July 3, 1925¹

CHOLERA

Place	Date	Cases	Deaths	Remarks
Algeria: Algiers.....	May 11-20.....	1	.....
Ceylon.....				Jan. 25-Apr. 4, 1925: Cases, 10; deaths, 10.
India: Calcutta.....	May 3-9.....	58	49	
Rangoon.....	May 3-9.....	8	5	
Indo-China: Saigon.....	May 4-10.....	1	1	
Siam: Bangkok.....	Apr. 26-May 2.....	2	1	
Turkey: Constantinople.....	May 16-22.....	1	.....

PLAQUE

Brazil: Bahia.....	May 3-16.....	4	3	
British East Africa: Uganda.....	Feb. 1-28.....	28	28	
Ceylon: Colombo.....	May 10-16.....	.....	1	
India: Bombay.....	Apr. 26-May 9.....	15	16	
Karachi.....	May 18-23.....	3	3	
Rangoon.....	May 3-9.....	27	24	
Indo-China: Cochin-China— Saigon.....	Apr. 20-26.....	1	1	Including 100 square kilometers surrounding country.
Madagascar: Tananarive Province.....	Apr. 1-15.....	79	60	Bubonic: Cases, 50; deaths, 35; pneumonic, cases, 17; deaths, 13; septicemic, cases, 12; deaths, 12.
Nigeria.....	Dec., 1924.....	17	13	
Do.....	Jan., 1925.....	10	6	
Siam: Bangkok.....	Apr. 26-May 9.....	5	5	
Straits Settlements: Singapore.....	May 3-9.....	6	6	

SMALLPOX

Algeria: Algiers.....	May 11-20.....	7	.....
Brazil: Pernambuco.....	Apr. 26-May 2.....	21	2	
Rio de Janeiro.....	May 9-16.....	1	.....
British East Africa: Kenya— Mombasa.....	Apr. 19-May 2.....	12	3	
Tanganyika Territory.....	Apr. 5-18.....	19	3	
Uganda.....	Feb. 1-28.....	2	.....
British South Africa: Northern Rhodesia.....	Apr. 28-May 4.....	3	.....
Canada: British Columbia— Vancouver.....	June 1-14.....	5	.....
Saskatchewan— Regina.....	May 24-30.....	3	.....

¹ From medical officers of the Public Health Service, American consuls, and other sources. For reports received from Dec. 27, 1924, to June 26, 1925, see Public Health Reports for June 26, 1925. The tables of epidemic diseases are terminated semiannually and new tables begun.

CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued

Reports Received During Week Ended July 3, 1925—Continued

SMALLPOX—Continued

Place	Date	Cases	Deaths	Remarks
China:				
Antung.	May 11-17.	1		Present.
Canton.	May 10-16.			Present.
Chungking.	May 3-9.			
Hongkong.	Apr. 19-May 2.	7	6	
Manchuria—				
Dairen.	Apr. 13-May 3.	54	6	
Harbin.	May 13-19.	1		
Nanking.	May 9-23.			Present.
France:				
Paris.	May 21-31.	1		Feb.-Mar., 1925: Cases, 48.
Gold Coast.				Jan.-Feb., 1925: Cases, 114; deaths, 17.
Great Britain:				
England and Wales				May 24-June 6, 1925: Cases, 187.
New Castle-on-Tyne.	May 31-June 6.	2		
Greece.				Jan.-Feb., 1925: Cases, 43; deaths, 6.
India:				
Bombay.	Apr. 26-May 9.	48	42	
Calcutta.	May 3-9.	109	100	
Karachi.	May 18-23.	1	1	Feb. 15-21, 1925: Cases, 2; deaths, 2.
Madras.	do.	40	16	
Rangoon.	May 3-9.	63	24	
Indo-China:				
Cochin-China—				
Saigon.	Apr. 20-May 10.	7	4	Including 100 square kilometers of surrounding country.
Irak.				Jan. 11-Apr. 4, 1925: Cases, 87; deaths, 42.
Bagdad.	Apr. 26-May 2.	3		Apr. 26-May 30, 1925: Cases, 75. Exclusive of Kingston.
Jamaica.				
Java:				
East Java—				
Soerabaya.	Apr. 16-22.	33	4	
West Java—				Province.
Batavia.	May 2-8.	1		
Tegal.	Mar. 29-Apr. 4.	2		
Mexico:				
Gundalajara.	June 2-15.		2	Including municipalities in Federal District.
Mexico City.	May 24-30.	1		
Tampico.	June 1-10.		1	
Morocco:				
Tangier.	May 17-June 5.			Present among natives.
Nigeria:				December, 1924: Cases, 40; deaths, 16.
Do.				January-February, 1925: Cases, 421; deaths, 11.
Poland.				Mar. 1-7, 1925: Cases, 3.
Portugal:				
Lisbon.	Apr. 26-May 30.	33		
Russia:				December, 1924: Cases, 880.
Do.				January, 1925: Cases, 383.
Siam:				
Bangkok.	Apr. 26-May 9.	4	2	
Spain:				
Malaga.	May 24-June 6.		8	
Valencia.	May 31-June 6.	1		
Syria:				
Beirut.	Apr. 21-30.	1		Jan. 3-Feb. 20, 1925: Cases, 8.
Tripoli.				
Tunis:				
Tunis.	May 6-20.	8	19	
Turkey:				
Constantinople.	May 16-22.	2		December, 1924: Cases, 8.
Uruguay.				

CHOLERA, PLAGUE, SMALLPOX, AND TYPHUS FEVER—Continued

Reports Received During Week Ended July 3, 1925—Continued

TYPHUS FEVER

Place	Date	Cases	Deaths	Remarks
Algeria: Algiers	May 11-20	6	2	In vicinity stated to be 12 cases. Isolated.
Bulgaria: Do				Nov.-Dec., 1924: One case. Jan.-Mar., 1925: Cases, 36; deaths, 2.
Chile: Valparaiso	May 10-16		1	
Egypt: Alexandria	May 7-13	2		
	May 14-20	1	1	
Greece: Athens	May 1-31		2	Jan.-Feb., 1925: Cases, 40; deaths, 4.
Mexico: Mexico City	May 24-30	11		Including municipalities in Fed- eral District. Jan., 1925: Cases, 63.
Morocco				
Peru: Arequipa	Apr. 1-30		2	
Poland				
Russia: Do				Mar. 1-7, 1925: Cases, deaths, 9. Dec., 1924: Cases, 4,227. Jan., 1925: Cases, 3,828.
Turkey: Constantinople	May 11-20	6	2	
Union of South Africa: Cape Province Natal— Durban				Apr. 19-25, 1925: Outbreaks.
Orange Free State	May 3-9	1		Apr. 19-25, 1925: Outbreaks.